Internship Abstract

Traditional Internships

Capstone Projects
Field Internships
Title: Data Analyzation For Project Firstline Infection Control (PFL)

Name: Batool Abdi

Preceptors: Michael J. Hodges, MHS, HO, REHS, CHES

Agency: New Jersey Association of County and City Health Officials (NJACCHO)

Purpose: To analyze pre and post-test data from Project Firstline Infection Control Trainings to evaluate the effectiveness of the program.

Significance: When COVID-19 struck, the world was not fully prepared on how to face the pandemic. This included local health departments, healthcare settings, and daycares. There are protocols and procedures that should be followed when trying to mitigate the spread of infectious diseases in all types of settings. The New Jersey Association of County and City Health Officials (NJACCHO) and the Centers for Disease Control are collaborators on the Project Firstline Infection Control program. This program helps educate people in the community on how to prevent the spread of infectious diseases so that everyone can stay safe. By decreasing the spread of diseases and teaching the public health workforce and frontline workers on how to face infectious diseases, this will help healthcare and other community settings to use their resources more appropriately to keep people safe and healthy. The program also has a Train the Trainer component that equips individuals with the knowledge and skills to provide foundational infection control training to others.

Method/Approach: Pre and post tests for the various courses were given to attendees of the NJACCHO Project Firstline Infection Control Training classes to evaluate change in knowledge and skills. Additionally, there were program evaluations distributed to assess the program and facilitator effectiveness. Methods used for the evaluations included Google forms and SurveyMonkey data.

Outcomes/Results: Pre and post test data indicated program effectiveness as there was an improvement during each session in knowledge and skills from the PFL programs. An example is the comfort rating with the “Basic Science of Viruses” session (the comfort level which was rated on a scale of 1 through 5), and the improvement in that training session was from 18.9% to 45% for the 5 rating which was a 138.095% increase. Each session had both pre and post test questions like this and the attendees were experiencing the same phenomena in each session. For the “Basic Science of Viruses” session, program evaluation and facilitation demonstrated 96.7% of the attendees will use the knowledge they learned in the session into daily practice. There is now an aggregate summary for each session topic and where to improve for each session. There was still confusion on a few questions for some of the topics/sessions and that is now seen through the aggregate data analysis on the pre and posttests. The SurveyMonkey data showed what parts of the sessions helped the learning process and what participants took away from it.

Evaluation/Conclusion: Overall, the findings from the pre and post test data showed where the Project Firstline Infection Control sessions were the strongest and where there was more clarification needed. Specifically feedback for the evaluator included how to improve each session and what worked including if breakout rooms were necessary when learning about these topics since not everybody participated and adding moderators in each group could help the flow of discussion, specific terminology that needed more clarification, analogies that were used to ground the science and make it more visual, and also how the CDC videos that were shown helped the attendees absorb the information. With the changes that will be required, the efficiency of the program will rise and therefore more gaps of knowledge will close for the attendees of the sessions.
Internship Abstract

Title: Developing Protocols for Anti-Seizure Medications and Immunoglobulin Levels

Name: Robert Abrahams

Preceptors: Shona McMahan; Clinical Research Manager & Head of Office of Research

Agency: Saint Peter’s University Hospital (SPUH)

Purpose: To facilitate establishing a research protocol at SPUH to demonstrate that pediatric patients on anti-seizure drugs (ASDs) do not exhibit a statistically significant decline in serum immunoglobulin (Ig) levels due to ASD use.

Significance: There is a need to develop this protocol and instigate research as current clinical practice relies on limited and inconsistent data that ASDs lower immunoglobulin levels (Svalheim, 2013). Previous studies surrounding the effect of ASDs on Ig levels indicate that patient Ig levels are measured shortly after the initial onset of a seizure, accounting for the transient surge of Ig levels (Callenbach, 2003). Conducting this research and monitoring Ig levels will help identify a confounding factor causing the fluctuations in Ig levels rather than ASDs having a direct effect. If the null hypothesis is upheld, the knowledge will better inform clinicians on treating pediatric patients experiencing seizures.

Method/Approach: The Office of Research at SPUH collaborated with the Pediatric Neurology Department to develop the research protocol. Frequent meetings, discussions, and revisions with the PI and CO-PI prepared the protocol for submission for IRB approval. Obligations consisted of intensive background research in the field to justify the protocol. In addition, designing the methodologies for the study involved creating inclusion and exclusion criteria based on age group and past medical history to prescreen prospective patients. Furthermore, determining statistical tests and establishing a data collection plan for obtaining three total blood samples was essential to monitor patient Ig levels and analyze the significance of any purported change. For data analysis purposes, subjects were split into two groups, those currently taking ASDs and those beginning ASD treatment. The study was proposed to run from May 2022 through May 2023, aiming for approximately 300 participants.

Outcomes/Results: The protocol was completed and sent for IRB approval to initiate clinical research. The protocol comprised the study's goal, expectations, and methodologies developed to produce valid data to support the study's conclusions. Key background research included Ig profiles of children post-seizure, irrespective of whether they are on ASDs, and varying Ig levels in pediatrics, supporting the study's hypothesis. Data has not yet been collected or evaluated to determine the statistical significance of the impact of ASDs on Ig levels. However, the study anticipates producing results to show that ASDs have a negligible effect on Ig levels in the blood and use this information to improve patient care.

Evaluation/Conclusion: The study is dependent on the research protocol receiving IRB approval. The PI will then assess the feasibility of the study's implementation and the effectiveness of the study's data collection and analytical methods. The study will be deemed successful, assuming no correlation is apparent between ASDs and immunoglobulin levels. Conversely, further research will be required to investigate possible limitations of the study or inconclusive data acquired. It is recommended that throughout the study, the PI gauge patient recruitment efforts to ensure there is sufficient participation and mitigate any loss to follow-up. Possible future steps include expanding the study to other hospitals or clinics and obtaining additional data to strengthen the study's conclusions.
Title: The Impact of Social Media marketing in health care

Name: Hiba Adina

Preceptors: Dr. Radia Elidrissi Zoak

Agency: Dental Health Associates - Englewood NJ

Purpose: To create and analyze marketing strategies for Dental Health Associates using Instagram as my main marketing strategy.

Significance: When the COVID-19 pandemic forced the entire world to shut down, companies had to look to more digital solutions. Businesses increasingly turned to digital marketing for sales leads. Seventy-two percent of online marketers describe content creation as their most effective Search Engine Optimization (SEO) tactic. Annual advertising spends on social media will top $134 billion in 2022, an increase of over 17% YOY (that’s an additional $23 billion!). Creating a space for dental health marketing in the digital world will also increase our overall contribution to population health and allow us to target specific demographics that need to be educated on the importance of dental health. On Instagram, posts with at least one hashtag get 29% more interactions (for profiles with 1,000 or fewer followers). This project will use a variety of different hashtag groupings to organically grow the account and reach a broader audience.

Method/Approach: A new Instagram account was set up for the dental office. An updated logo was created in Canva. From March 1st to April 30th one Instagram post was posted each day. Instagram reels were recorded using an iphone and edited using the Instagram app. The stock photos were a mixture of free photos found on Pinterest and photos of the office. The hashtag strategy included adding 8-15 hashtags per post to give a more focused identity to the Instagram algorithm. Some posts used fewer hashtags (3-5) to compare results. An artificial intelligence program called Flick.tech was used to identify the most pertinent hashtags. Moz.com was used to collect data on the company's online presence score. Instagram analytics tools were used to monitor the progress of each campaign.

Outcomes/Results: The first hashtag group contained 3 high competition tags, 5 medium competition tags, and 7 low competition tags and was used for 6 days straight. During the first day no hashtags were used and this resulted in no reach of the audience. Day 2 reached a total of 5 new accounts, followed by a big jump the next day leaving day 3 with 17 new audience reaches. Day 4 reached 44 new people but surprisingly there was a decline on day 5, only 22 accounts interacted with the post. The downhill trend continued as day 6 dropped to a total of 7 people only, and then back up to 22 accounts reached on day 7. An averaging of 17.7 accounts were reached per day for the first week of April. Moz.com online presence score improved by a total of 42% from March 1, 2022 to April 7, 2022.

Evaluation/Conclusion: Hashtag strategizing is extremely useful when building a brand's online digital presence. Using the insight tool Instagram offers serves as a beneficial tool for social media marketers to take advantage of since it collects data for you in regards to audience reach, content interactions, and profile activities. The insight tool goes even further to break down the demographic further to let you know who is interacting with your page. On-going hashtag testing will be used to optimize the brands growth.
Internship Abstract

Title: Community Improvement within Asbury Park through Strong Leadership

Name: Selina Afzal

Preceptors: Supervisor: Quadai Palmer (FJWL President)

Agency: From Jersey with Love

Purpose: To maintain and promote the safety, health, and wellbeing of residents within the Greater Asbury Park area through strong leadership and empowerment of various nonprofit agencies.

Significance: The Greater Asbury Park area is considered to deal with a great amount of disparities such as poverty, crime, and lack of education. Additionally about 25.8% of the residents within Asbury Park are living in poverty or extremely low income. Residents of impoverished communities are at increased risk for chronic illnesses and higher mortality rates. In order to reduce these problems and improve population health overall, focusing on maintaining their health and wellbeing through food pantries and community events can play a major role. From Jersey with Love (FJWL) has the ability to provide these services and work to build stronger communities within Asbury Park through strong commitment and leadership skills.

Method/Approach: In order to effectively promote adequate leadership within nonprofit agencies, FJWL worked to connect community leaders together through networking, empowerment, and other events. This was done effectively by sending out weekly newsletters surrounding the importance of mindfulness and self care despite a busy schedule. Hence, the purpose of these was to ensure that community leaders realize that although they have a lot on their plate, they need help and relaxation as well. Additionally, the FJWL Leading in Love (LIL) Leadership Conference was hosted on March 18, 2022 which primarily served to promote strong communities by empowering its leaders.

Outcomes/Results: So far, the mindfulness newsletter has been sent out in a timely manner for 3 weeks to community leaders, mentees, and staff members which makes up about 88 members. According to ReachMail statistics, the average opening rate of these newsletters has been 33%. For the LIL Leadership Conference, there were 15 attendees that participated in the meeting and its activities. After the conference, 5 of these mentees completed a survey that aimed to determine the effectiveness of connecting with other nonprofit organization leaders. 100% of respondents agreed they would recommend the event to a colleague. Additionally, 80% of respondents agreed that the following event gave them all the information they needed and felt they left learning something new.

Evaluation/Conclusion: About ⅓ of community members actively engaged with the weekly newsletter. Our goal with the newsletter was to make a healthy lifestyle possible for them despite their busy schedules. Although 33% engagement may seem low, prior to the start of my internship, there was rarely any engagement like this within the community. With more positive feedback through the LIL survey, it demonstrates that networking with other leaders in the nonprofit sector not only fuels empowerment, but also contributes to reaching community goals. Even with negative feedback, it gives nonprofit sectors a chance to improve within their weak areas and promote even more empowering events. Without such engagements within various communities, many residents may go without healthy food, water, shelter, and even mental health care.
Title: Red Bank Veterinary Hospital Health and Safety Performance Assessment

Name: Madeline Agresti

Preceptors: Project/Direct Supervisor: Jessica Contenoff, Clinical Manager

Agency: Red Bank Veterinary Hospital

Purpose: To analyze Veterinary medicine safety techniques, in a high-energy environment and propose educational interventions to improve adherence to guidelines.

Significance: Veterinary practice is associated with a large number of potential chemical, biological, physical, and psychological hazards that vary within the workplace setting and the type of tasks performed (Gibbins and MacMahon, et al, 2015). Accidents can be minimized or prevented when proper safety measures are made in response to identified safety hazards. At Red Bank Veterinary Hospital the aim is to provide the highest quality of care to the animals while following all safety measures. To be able to provide care, the staff needs to be able to perform at their highest potential. “Compassion fatigue can damage a person mentally and be problematic to the physical work that they do, contributing to an unhappy work environment and clinical errors being made.” (Thompson-Huges, 2019). Veterinary medicine typically attracts individuals who are caring and compassionate so they take on a lot of physical and emotional pain at a cost. This is why RBVH offers mental health services so that the staff can safely work each and every day without feeling mentally exhausted or the effects of burnout.

Method/Approach:
Research and observations were conducted as well as a handful of interviews with the staff at Red Bank Veterinary Hospital. An anonymous survey was also sent to the staff asking about the mental health services offered at RBVH. The staff consists of Veterinarians, Veterinarian Technicians, Vet Assistants, Learning and Development Administrators, and the Head of HR. Interview questions consisted of personal experiences with health and safety throughout the hospital and how each individual feels about the changes that have happened. Specifically, safer techniques to keep the employees physically safe as well as openly offering mental health services.

Outcomes/Results: After four months of researching online, observing, and working with all rankings of staff within veterinary medicine a great deal of information was collected and processed. The primary theme to keeping the workplace running smoothly was to make sure that the staff in charge of the health and wellbeing of the patients felt safe and well. The survey that was sent out showed that the main reason for wanting to work in veterinary medicine was because of the individual's love for animals and need for a purpose. Out of 28 respondents, 40.7% had not dealt with mental health before working in this field. 35.7% said their mental health would improve if they stopped working in this field and 97% think mental health should be discussed more openly.

Evaluation/Conclusion: The primary goal of the project was to show the importance of continuous safety checks and mental health services at veterinary hospitals. Limitations included a lack of responses. Future plans include further research; evaluating more veterinary hospitals and staff; encouraging the discussion of mental health; and proposing mental health services as a core component of employee benefits.
Title: Sex-Positivity for Female Bodies Workshop

Name: Tatyana Aguilar

Preceptors: Francesca Maresca, PhD, Director

Agency: Health Outreach, Promotion and Education

**Purpose:** To empower female-bodied individuals to take control of their sexual experience through learning communication skills, reproductive anatomy, and how to explore their sexuality.

**Significance:** About two-thirds of sex-positive women feel shame or selfish when they masturbate, and only a third of them feel sexual empowerment. Specifically, studies reported that women who said they felt shame or felt gross also stated having feelings of guilt, disgust and selfish for not being with their partner; or for taking time to themselves when they masturbated. The women who felt sexual empowerment stated they experienced feelings such as powerful, strong, sexy, independent, and satisfied.

Women are generally expected to have offspring and engage in sex with men and masturbation disrupts these expectations which can lead to feelings of empowerment over their own sexuality. A sex-positive workshop for female bodies can lead women towards sexual empowerment and promote feeling positively about their sexuality.

**Method/Approach:** To improve sex-positive feelings, a workshop was developed on the topics of communication, anatomy, and masturbation. The workshop contained an activity that taught communication skills of needs and wants, another on naming the parts of the vulva, and lastly, a lesson on safe practices for masturbation/self-sex. There were two sets of evaluations. The first workshop and evaluation was for an audience comprised of the facilitator’s fellow sexual health peer educators. The participants evaluated various components of program facilitation including delivery, timing of activities, and the quality of the workshop on a scale of one to five (one being not true, three being neutral and five being very true). The second audience comprised students assigned female at birth, or AFAB, from the general student body. Members ranked their answers on the same scale of one to five for each question on how they felt before and after the workshop. The questions were about their confidence levels on talking about sex, their own sexuality, and their retention of what they learned about in the workshop.

**Outcomes/Results:** Two-thirds of the participants (n=9) were able to identify at least seven of the ten parts of the vulva that they were taught during the workshop. Prior to this workshop only a third that answered ranked at least a four out of five in their knowledge of the vulva. Prior to this workshop less than half of the participants felt comfortable communicating their sexual needs and wants to their sexual partner. After the workshop, seven of the nine participants ranked at least a four out of five. When asked about their ability to identify ways and places to explore their sexuality, only a third of the participants ranked at least a four out of five in ability to do so. When asked about how they felt after the workshop, all the participants ranked a four and above.

**Evaluation/Conclusion:**
The evaluation proved to have helped the participants improve their confidence and skills in communication, reproductive anatomy, and how to explore their sexuality. This pilot project indicates that larger scale workshops and continuous education can continue to improve sexual empowerment for people with vaginas. Further research on this topic can include a larger audience.
Title: Safety Module Creation and Translation

Name: Laila Ahmed

Preceptors: Bill Owens, Senior Manager, Global Quality Assurance

Agency: The Clorox Company— Kennesaw, Georgia

Purpose: To study and analyze the efficiency of educational safety modules and edits on the changes in rates of injuries before/after modules are completed.

Significance: According to the U.S Bureau of Labor Statistics, there were approximately 4,764 fatal work injuries in the United States in 2020, a 10.7% decrease from 2019 when it was 5,333. The destructive work injury rate translates to about 3.4 fatalities per 100,000 full-time equivalents (FTE) workers. The former fatalities in 2020 represent the lowest number since 2013. However, this rate still means that a worker died about 111 minutes from a work-related injury in 2020. As a result of Clorox owning numerous manufacturing plants with large machinery, it is essential to ensure that proper regulations are set in place to minimize injuries and serious consequences such as death.

Method/Approach: Most of these injuries tend to arise from not completing the safety training modules that are expected of each employee in the plants. The first step in our method would be to look back at the employees who are consistently not completing the training set. Then we can cross-reference those who do not meet them with the plant and individual that had the injury or fatality. We can receive the numbers of deaths and injuries per month for each of Clorox's plants. Most plants can go almost a full year without harm. However, these injuries are likely caused by the lack of proper following of procedures.

Outcomes/Results: Clorox had a 0.58 recordable incident rate in comparison to the world-class level being <1.0 for the fiscal year 2020. The 0.58 means that "for every 100 Clorox employees globally, not including workers at offices with fewer than 30 employees but remote workers, we averaged less than one reportable incident during the past year." According to the information provided by the U.S. Bureau of Labor Statistics, that average is about 3.4. For the fiscal year 2021, that number was 0.26, perfect for every 100 full-time equivalent Clorox employees globally. The plan is to create a file that can assess the completion of courses per employee in their respective plant to see if there is a correlation between this and the injury rate.

Evaluation/Conclusion: To prove the data, I will complete an evaluation of the employees who complete the courses, and cross-reference it with the rates of injury that I will get from each specific site. As was recently shown, some of these incidents have been proven to be due to employees not following training and protocol, and I will need to ask site managers about the commonality of that as well; lack of following rules and protocols may have increased these rates. I will also look into other organizations that have had similar concerns and assess whether changes to their safety modules have decreased their injury rate or not.
Title: Refugees in the American School System

Name: Sabrina Ahmed

Preceptors: Kylie Davis, Youth Program Coordinator

Agency: International Rescue Committee - Elizabeth, NJ

Purpose: To collect and analyze data on refugee families' understanding of how the United States school system works.

Significance: The overthrow of the Afghan government by the Taliban and the subsequent withdrawal of United State military forces resulted in an influx of refugees from Afghanistan to the United States. Since August of 2021, the U.S. has pulled out more than 76,000 Afghan citizens to the United States, according to a representative for the U.S. Department of Homeland Security. Since January 31st, 68,000 Afghans have been relocated to communities across the nation, in cooperation with more than 200 resettlement organizations. Almost half of the refugees are documented as being younger than 18 years old. Being displaced outside their own borders – suggests there are huge gaps between refugees, and their non-refugee peers when it comes to educational expectations.

Method/Approach: School-directed assessments were developed. The Afghan refugees were contacted individually by phone to schedule and present a school orientation. Before presenting the school orientation, the pre-assessment questions were administered. If the parent had an obvious understanding of the topic, a checkmark was placed. If they made a guess or their answer was incomplete, no checkmark was placed. Then, the post-assessment questions were asked after the presentation. During the post-assessment, if a client seemed to have a clear general understanding, a checkmark was placed. If clients received a score of 87% or higher on the post-assessment, then they were noted as having a satisfactory understanding of how the United States school system works.

Outcomes/Results: This project was used to measure the knowledge of how the United States school system works and address any of the refugee family's concerns. The sample size cohort was (n = 14). Pre-test results were as follows, people who knew how the United States school system works prior to the presentation were 0 (0%), and people who did not know how the United States school system works were 14 (100%). Post-test results were as followed, people who understood how the United States school system works following the presentation were 12 (86%), and people who did not understand how the United States school system works post orientation were 2 (14%). Outreach to refugee families is ongoing.

Evaluation/Conclusion: The outcome of the pre-assessment showed that all of the clients were not knowledgeable about how the United States school system works. Most of the remaining clients that did not pass the pre-assessment showed that there was knowledge gained because of the orientation given, post-assessment results raised to 12 (86%) for people who understand how the United States school system works. As a result of this project, the clients have a better understanding of the nature of the school system, the educational opportunities available to them, the values and functions of the school system community, and the central objective of the school system as an academic enterprise.
Title: Maternal and Child Health

Name: Sania Ahmed

Preceptors: Maritza Raimundi-Petroski, Vice President

Agency: The Children’s Home Society of New Jersey

Purpose: To effectively conduct research, literature review and coordinate presentations as part of the professional development/training track for staff working with women, infants and children.

Significance: There is a total population of 283,000 people in Trenton, NJ and over 81% of the population identify themselves as African American or Latinx (THT, 2020). The city of Trenton has been affected socially, economically, and physically by decades of inequitable investment compared to larger communities in New Jersey. Due to these factors, residents are often skeptical about the healthcare that they receive. Maternal health is crucial for mothers and their babies. The Children’s Home Society of New Jersey (CHSofNJ) works with women, infants and children to educate and aid in healthier living with several programs and health services. Through effective training and presentations for staff at CHSofNJ, residents of Trenton may grow a higher trust for the maternal healthcare system and thus overall improve maternal health.

Method/Approach: In order to effectively develop training programs/presentations for the staff of the Maternal and Child Health Program at CHSofNJ, extensive background research must be conducted. This research can be done through studying and reviewing previous and current maternal health programs such as AMAR Community-Based Doula Program, CUNA Prenatal Health Education and Support Group Program, Birth Parenting Counseling, and the Women, Infant and Children Program. Reviewing the material that has worked for programs can allow the staff at CHSofNJ to be educated on maternal health needs by using best practice techniques. Potential speakers will also be sought out in hopes that they will give Diversity, Equity and Inclusion (DEI) presentations to the CHSofNJ staff.

Outcomes/Results: A presentation about the impacts of the COVID-19 pandemic was created by looking at previous programs along with scholarly articles about maternal health programs. Staff will be informed of what CHSofNJ has done in terms of the pandemic and how it has affected the maternal health field and its programs. The presentation includes information about the effects of the pandemic on mental health and physical health for pregnant individuals. The presentation will be 7-8 minutes long and recorded by April 20th. It will be shared with CHSofNJ’s staff in the first week of May with a survey at the end evaluating the presentation and if it was effective in sharing COVID-19 information.

Evaluation/Conclusion: CHSofNJ offers many programs, at no cost, for women, infants, and children in terms of maternal health. However, there are community members who refuse to reach out for help in fear of being discriminated against or receiving improper care. There are potential challenges the staff may face while being educated or distributing information to community members. There might be a language barrier present. Currently, CHSofNJ offers information in both English and Spanish. Visuals (graphs, pictures, etc.) while relaying information may make it easier for a non-English speaker to understand. If the staff is educated about a recent pandemic, then they will be able to confidently answer questions that patients, or the community asks them. This will increase the level of trust that the community has for the staff of CHSofNJ.
Title: Understanding Mental Health in Urban Communities

Name: Ariel Ajero

Preceptors: Zaire Ali, MPH, Ed.M, Executive Director of The Urban Health Collaborative

Agency: The Urban Health Collaborative (TUHC)

Purpose: To investigate the injustices and health disparities in urban communities and promote healthy habits for families through Mental Health Hygiene and Social and Emotional Learning (SEL) strategies.

Significance: Adverse Childhood Experiences (ACEs) have long term negative effects on children’s health and well-being, which can last through adulthood and continue throughout future generations. Children living in urban environments experience more ACEs than their counterparts living in suburban and rural environments. According to a 2020 study, researchers say that patients with a polyvictimization to ACEs often had a lower level of education and were living in urban communities. Polyvictimization to ACEs makes individuals more susceptible to negative biopsychological effects and adverse health outcomes. According to the 2019 NJ ACEs Opportunities Report, children who experience 2 or more ACEs are nearly 3 times more likely to repeat a grade than those with no ACEs (New Jersey Funders ACEs Collaborative, 2019). Understanding the health disparities and adversities that youth and their families experience in urban communities is an important step in providing them the support they need to live healthy and successful lives.

Method/Approach: TUHC held several community events, which implemented mental health hygiene practices and SEL strategies to advocate for urban communities and raise money for the organization’s public health outreach efforts. To extend our outreach and research, the community outreach team utilized social media and the organization’s website to provide health education and event promotion materials. Social media and website analytics were collected, analyzing the activity and demographics across each post and platform. Social media and website activity includes traffic, impressions, engagement, and clicks. The activity and demographics were then utilized in our event and program development, catering them towards our audience to produce the most engagement and positive community impact.

Outcomes/Results: Through community outreach events and fundraising campaigns, TUHC raised over $2000 and received about 500lbs of donated clothes. These funds were put towards academic and programmatic materials, to support our health education workshops, and to help TUHC continue to host future community outreach events. By implementing a structured social media calendar and regularly posting health promotion and advocacy material, we were able to see a 200% increase in the organization’s social media interactions and impressions across all platforms.

Evaluation/Conclusion: The organization’s greater social media presence has shown a significant increase in growth which has led to increased community engagement. Community outreach efforts have helped TUHC provide at-risk communities the tools they need to improve their health and overall wellness. We believe education is equity, and by providing communities with the knowledge and skills to help improve and preserve their health we are providing personal equity to youth and families in urban communities. TUHC has also partnered with the NJ Office of Resilience, The Burke Foundation, and Greater Newark HealthCare Coalition. Partnering with small businesses, individual artists, and other non-profit organizations has also helped extend our reach throughout urban communities.
Title: Furthering Futures for Young Adults and Biweekly Outreach Programs
Name: Samirah Alauddin
Preceptors: Kathy Wright, Executive Director of NJPC
Agency: New Jersey Parents’ Caucus - Elizabeth, NJ

Purpose: To provide resources, referrals, and support to young adults dealing with mental and behavioral health challenges to improve that quality of life

Significance: Currently, the United States is in a mental health crisis and nothing is being done to help with these matters. Mental illness is a deadly disease that contributes to many deaths that occur worldwide. Statewide, young adults are dealing with mental illnesses and don’t receive the help needed. It’s even harder for individuals living in disadvantaged communities where there is no support system, making it more difficult to access necessary resources. The New Jersey Parents’ Caucus is eager to help families by providing resources and training for both the parents and children with mental health disabilities. This program provides referrals and information from multiple organizations to reduce the trauma that many individuals have encountered. The new project will provide resources for those with mental health disabilities as well as assist those from disadvantaged communities learn about college and credit to better prepare them for adulthood.

Method/Approach: In order to help those with mental health disabilities and those from disadvantaged communities, a program was implemented entitled Furthering Futures. Furthering Futures focuses on changing individuals’ lives and supporting them by providing peer counseling and educational workshops on financial aid, credit counseling, and employment assistance. A brochure and flier was created to explain the program and the resources being offered. A client intake form was created as well for individuals interested in participating in the program to fill out. To bring awareness to the programs provided, four Outreach events were hosted and there was weekly marketing on all social media platforms to provide information about my program. The first event was virtual where a Facebook Live was created to inform individuals of the new programs created and the services provided. The events were advertised on NJPC’s website, as well as Facebook and Instagram page. The second Outreach event was in-person, located at Trinitas Regional Medical Center. There was a lot of information and resources provided to the people who came in and many families learned about the mission of Furthering Futures and how it can benefit the community as a whole. Those who filled out the intake form were contacted and scheduled into a peer support or educational workshop meeting via Zoom.

Outcomes/Results: The Facebook live received a total of 214 views. 80 individuals were reached at the four outreach events between March 7th and April 25th and were given Furthering Futures’ brochures and intake forms. As a result of the Outreach events, 6 new clients were registered. Surveys were given out to the 6 clients to rate the performance and effectiveness of Furthering Futures.

Evaluation/Conclusion: Through the surveys given out, clients were able to analyze the progress made mentally. The increase of clients from 0 to 6 demonstrates the success of this program. Those in need now have an organization to get help from when needed. The intake forms help keep track of all the individuals assisted and the surveys help analyze the effectiveness of the program. This program will be continued in the summer to help any families in need of help.
Title: An Analysis of the 2022 CABOMETYX Pan Tumor Campaign

Name: Alyanna Aldea

Preceptors: Direct Supervisor: Kinsey Hackworth, Account Supervisor
              Project Supervisor: Teresa Day, COO & Managing Director

Agency: BGB Group

Purpose: To analyze the agency’s process for developing and promoting the CABOMETYX #1 TKI claim and compare cabozantinib with other TKI competitors.

Significance: Cancer is the second largest leading cause of death in the United States (CDC, 2020). However, with different therapies, the survivability of many cancers has been greatly increased. Targeted therapy is a type of cancer treatment that aims to block specific pathways in order to inhibit tumor growth and survival (BGB, 2022). Currently, there are many drugs marketed as targeted therapy that oncologists can prescribe to their patients. In order to educate healthcare physicians and provide consumers with the treatment they need, pharmaceutical companies rely on marketing agencies to inform their audience about their product (Matheson, 2016). With the major goal of promoting the efficacy and effectiveness of CABOMETYX’ (cabozantinib) therapy, the BGB Group incorporates creative marketing strategies with an analysis of competitors to ultimately provide target consumers with the treatment they need.

Method/Approach: In order to explore the CABOMETYX campaign and BGB’s approach, a comparative review of both competitors’ and BGB’s internal campaigns was established. First, a selection of different competitor drugs branded as TKIs were studied with the purpose of identifying core claims and strategies. Next, an analysis of the BGB agency’s internal campaign processes was conducted. The agency regrouped internally on a daily basis in order to align with the client’s needs, FDA guidelines, and creative direction. This involved multi-departmental meetings involving departments such as Account, Creative, Project Management, and Medical in order to facilitate the creation of deliverables that satisfied client, agency, and governmental standards. By comparing the core claims and marketing of both CABOMETYX and their competitors, the agency’s strategies to promote cabozantinib could be analyzed in order to make further recommendations to the client.

Outcomes/Results: An analysis of competitors such as Lenvima and Inlyta showed similar trends in the language used in their marketing. Popular pharmaceutical marketing strategies relied on positive terms such as "efficacy" and "first" as a means of distinguishing themselves from other drugs. In addition, calls to action were common among the studied competitors. BGB incorporated similar strategies throughout the current CABOMETYX campaign. Throughout the internship, the process for approving the #1 TKI claim required numerous FDA reviews and appropriate changes based on client and reviewer feedback. With consideration to the client’s needs, the #1 TKI claim was approved with an appropriate disclaimer, allowing the agency to incorporate this claim in current and future projects.

Evaluation/Conclusion: The success of the CABOMETYX campaign and the #1 TKI campaign will be measured over the course of the campaign as deliverables continue to be finalized. Ensuring a balance between FDA approval and meeting clients’ needs is an essential aspect of pharmaceutical marketing.
Internship Abstract

Title: February’s Updates on Children’s Online Safety Legislation

Name: Maleiha Ali

Preceptors: Lauren Hill - Recruitment, Development, and HR Coordinator

Agency: Children and Screens: Institute of Digital Media and Child Development

Purpose: The Legislative Monthly Update is a newsletter that provides a governmental and non-governmental scan tracking all current news regarding online safety and media policy.

Significance: In 2021, a series of articles by the Wall Street Journal called The Facebook Files, revealed that the platform was aware of its harmful effects, and that they knowingly contributed to misinformation, polarization, and the invasion of consumer privacy and safety. Several pieces of proposed legislation are currently in place with bipartisan support, yet many of them have not been passed yet or are in place but ineffective. Children and Screens supports research efforts to study the harmful effects of media on youth, and serves as expert witnesses in legislation congressional hearings. The updates keep the public up to date and Children and Screens informed on current congressional hearings, relevant reports, leading advocacy groups, and more.

Method/Approach: In order for Children and Screens to serve as an expert witness, they must have an in-depth understanding of current legislation on children’s online safety. The Library of Congress has an online tracking measure of the current legislative activities of the 117th Congress (2021-2022) which serves as an important tool for gathering information. Other trustworthy sources such as Forbes and The National Law Review provided differing opinions from people with different political affiliation, other research institutes, and various social groups. Being aware of the current state of legislation and observing the public’s reaction allows Children and Screens an opportunity to support more research efforts and decide how they’d like to serve in the legislative process.

Outcomes/Results: The February Legislative Update was divided into several categories that provided a brief overview of the current policy landscape, as well as key players to watch like congresspeople, committees, and advocacy groups. Several new bills were introduced into the House or Senate, as well as committee hearings on already passed bills looking to amend or get rid of current bills. There were updates in bills like the Social Media NUDGE Act. Significant jumps occurred in the realm of child safety law, particularly in the PROTECT Kids Act, EARN IT Act, and the Children’s Online Privacy Protection Rule. International developments in online safety bills in Thailand and the European Union are underway. Domestically, there were major COPPA settlements and introductions of White House bills.

Evaluation/Conclusion: The public’s call to the government demanding for regulations on social media to increase children’s online safety has increased. With the introduction of fairly new bills that are all in their beginning stages, Children and Screens has ample opportunities to research the suggested bills and aid them in being effective and efficient during their congressional hearings at the House and Senate.
Internship Abstract

Title: Pediatric Patient Outreach with LLS

Name: Zehra Ali

Preceptors: Stacy Kreizman, Senior Manager of Patient and Community Outreach

Agency: The Leukemia and Lymphoma Society

Purpose: To connect pediatric patients with Leukemia and Lymphoma Society (LLS) programming and support that will aid them and their families through their fight with blood cancer.

Significance: In New Jersey, the incidence rate for pediatric leukemia is higher than in the United States for each gender and age group (New Jersey Department of Health). Though the incidence rate is high, many patients and caregivers lack the resources necessary to grapple with this difficult diagnosis. The Leukemia and Lymphoma Society has created programs and services including emotional support, financial services, and educational programming free of charge. These services are advertised through the outreach initiatives of LLS Patient and Community Outreach staff, along with phone calls, mailings, and marketing via social media, and the LLS website. The goal of this project is to connect more patients with services and programs that can benefit them throughout their cancer journey. By doing so, patients will have more access to fight their cancer and thrive during this difficult time.

Method/Approach: To review what steps were needed to increase partnerships with patients and LLS programming, a ledger was created noting all interactions for each hospital or cancer center treating pediatric patients, and the associated social workers were identified. These social workers were presented with LLS programming and educational materials. Social workers were encouraged to refer their patients to LLS so they can be contacted and matched with appropriate support. Next, each patient referred was contacted via phone and connected with programming that could aid them. Programs include free nutritional counseling, financial assistance, support groups and more.

Outcomes/Results: There are 10 cancer centers/hospitals treating pediatric patients in New Jersey. Of the ten social workers contacted, all received LLS material to distribute to their patients. Data collected found that in the northeast region 31,893 pediatric patients have been diagnosed with blood cancer. With new LLS material distributed, there was a 30% increase in pediatric patients added to the LLS database. Each patient was connected with a program or form of support to match their needs. This contributes to the bigger picture because now each of these patients can benefit from new programming created by LLS.

Evaluation/Conclusion: With each patient that is connected to LLS, they are added to the pediatric patient count and the gap is lessened with those who are in need. With the 30% increase, can provide support to more pediatric patients than ever before, while continuing to connect more new patients along the way. Each new member has been connected with a new program whether it be financial copay assistance, nutrition advisors, support groups, or caregiver workbooks, and more. After the pediatric educational program that will take place at the end of May, the count of new patients can be reassessed and Patient and Community Outreach staff can determine what new programming they need to be connected with. This program entitled “Emerging from a Pandemic: Psychosocial Impact on Child and Adolescent Cancer Patients” will be taking place to introduce new patients and caregivers to LLS and will offer further information for pediatric cancer patients and caregivers.
Title: Analysis of the Harmful Effects of Single Use Plastics in Rutgers University

Name: Faton Alili

Preceptors: Caleb Haddad, Organizing Director

Agency: NJPIRG

Purpose: Determining the harmful effects of single use plastics on campus and advocating for environmentally conscious alternatives to single use plastics in Rutgers dining halls.

Significance: Plastic usage, specifically single use plastics, are widely abundant in our society. Globally, over 300 million tons of plastic are produced each year and the trend is increasing (Herberz, Barlow, & Finkbeiner, 2020). The most concerning aspect about the production of single use plastics is the effect of plastic usage in our environment. The accumulation of plastic, specifically in the oceans, is estimated to contain about 4.8 to 12.7 million tons of plastic in 2010 alone (Herberz, Barlow, & Finkbeiner, 2020). One of the most concerning aspects about single use plastics is the massive quantity of plastics that have been affecting our wildlife and the environment, however plastic usage has also been shown to have adverse effects on humans. “Observed effects include oxidative stress, cell damage, inflammation, and impairment of energy allocation functions” (Vethaak & Leslie, 2016). Despite this however, there are possible solutions that can be implemented. This can include, bringing more public awareness about the benefits of recycling, usage of reusable material, as well as replacing plastic usage with biodegradable materials.

Method/Approach: In order to properly inform the public as well as Rutgers dining officials about the harmful effects of single use plastics, it is pertinent that the proper means are set up in order to gather public support for this campaign. This includes setting up tables throughout every Rutgers campus and interacting with students and informing them about the adverse effects of single use plastics, as well as replacing single use plastics in Rutgers dining halls with reusable and biodegradable alternatives. During these tabling events, NJPIRG volunteers would also hand out petitions for students to sign in support of our campaign. The main purpose of these petitions is to present them to the head of Rutgers dining, Joe Charette, and get his approval to cease the use of single use plastics and adopt environmentally friendly alternatives.

Outcomes/Results: 1300 petitions were submitted by students in support of this campaign. On March 4th, 2022, NJPIRG had a formal meeting with Joe Charette. During this meeting, serious consideration has been given for the conclusion of plastic use in Rutgers dining services, however officials would like to see more public support in the future for replacing single use plastics, as well as more viable solutions for replacing plastics. Despite this however, Joe Charette is open to more dialogue on this issue in the future.

Evaluation/Conclusion: Throughout the semester there has been considerate work done on informing Rutgers students about the harmful effects of single use plastics. Our next step in this process is to gain more public support through methods such as spreading visibility throughout Rutgers campuses. In addition to this proper solutions to banning plastic use also needs to be considered. This can include using biodegradable materials such as birch wood materials, cardboard boxes, bamboo materials, etc.

References
Title: Effectiveness of Mobile Health Interventions on Postpartum Women with Previous GDM

Name: Aila Altunbilek

Preceptors: Project Supervisor: Shristi Rawal, Ph.D., Assistant Professor

Agency: Rutgers School of Health Professions

Purpose: To conduct a literature review on the effectiveness of mobile technology to promote lifestyle changes and improve cardiometabolic outcomes among postpartum women with previous gestational diabetes.

Significance: Gestational diabetes mellitus (GDM) is the most common pregnancy complication and is associated with an increased long-term risk of diabetes and cardiometabolic diseases (Potzel et al., 2021). Globally, GDM is estimated to affect about 14% of pregnancies. Half of these women will develop Type 2 diabetes in the future, a rate that is three and a half to seven times that of women who did not experience GDM in pregnancy (Cheung et al., 2019). Face-to-face behavioral interventions use structured lifestyle modifications, such as ensuring optimal weight loss, good dietary routine, and physical activity habits, for women with GDM or following GDM to prevent or delay the onset of cardiometabolic diseases. However, these interventions have shown a lack of effectiveness for these women. This literature review explores how the features of a mobile health technology can be tailored to effectively promote lifestyle changes to reduce GDM women’s risk of Type 2 diabetes and other cardiometabolic diseases.

Method/Approach: A literature review was conducted using PubMed and Google Scholar with terms related to mHealth interventions, GDM, and Type 2 diabetes/cardiometabolic risk factors. Relevant articles were selected in the following research areas: 1) risk factors for progression from GDM to T2D and other cardiometabolic diseases, 2) beliefs and perceptions of women with previous GDM, 3) efficacy of face-to-face lifestyle interventions, 4) efficacy of mHealth lifestyle interventions. Excel was used to record relevant content categories abstracted from the article, including the objective/purpose, study population description, description of the intervention, main findings, and limitations. The findings from these articles are summarized in this paper.

Outcomes/Results: Two meta-analysis studies found women with GDM are at a seven-fold diabetes risk as compared to women without GDM, with peak risk of diabetes occurring within the subsequent five to sixteen years postpartum. Three studies showed an early onset of T2D is associated with an elevated risk of cardiometabolic disease, including cardiovascular disease, in women with previous GDM. Six face-to-face randomized control trial lifestyle interventions found mixed results of effectiveness. Four of these studies found no significant increases in physical activity targets. Two of these studies found a reduced risk of diabetes after an intensive lifestyle intervention. Three RCT mHealth interventions reported higher retention rates and slightly positive trends in lifestyle changes. Five mHealth interventions were limited to pilot studies, though one ongoing study began to show positive trends in the use of text-messaging and activity monitors for some women with previous GDM (Cheung et al., 2019).

Evaluation/Conclusion: As the prevalence of GDM continues to increase, the development of mHealth lifestyle interventions needs to target cardiometabolic risk reduction in women with previous GDM. Larger RCT studies with longer follow-ups are needed to clarify the effectiveness of mHealth interventions in preventing long-term cardiometabolic outcomes.
Internship Abstract

Title: Transitioning to Value Based Care using Comprehensive Kidney Care Contracting Program

Name: Ololade Aluko, Intern

Preceptors: Bill Bing, MHA, Operations Manager

Agency: JNT Healthcare Consulting

Purpose: Design an implementation plan for Comprehensive Kidney Care Contracting (CKCC) program with the initial focus on administering the PAM survey to all participants.

Significance: The Comprehensive Kidney Care Contracting program was designed to help healthcare providers reduce the cost and improve the quality of care for their patients with late stage chronic kidney disease. The program aims to show patients how to take active control of their care in order to prevent the need for dialysis. A Patient Activation Measure (PAM) survey is administered to each patient, which generated a personalized activation level number that is reflective of the how capable they are of managing their own care. As part of the program they will be connected with resources that will be most valuable to their specific needs and a tailored support team that will work with the patient to improve their overall safety and satisfaction.

Method/Approach: To assemble a directory of all the Chronic Kidney Disease (CKD) patients, a patient alignment roster was filtered to create an Excel spreadsheet that included patient names, date of birth, providers, and their CKD status. The next course of action was to make sure all the patients had appointments scheduled to visit their physician before June 1, 2022 in order for the Renal Care Coordinator (RCC) to be able to meet with them. For the beginning stages of this implementation process, the main goal was to get all the patients to complete the Patient Activation Measure survey, which is a 10 to 13 question survey that assesses three key domains- knowledge, skills, and confidence that reflects the patient’s ability to self-manage. If the RCC is unable to meet with the patients in person, they will then make arrangements to conduct it telephonically.

Outcomes/Results: At Ocean Renal Associates 385 chronic kidney disease patients qualify for the CKCC program, of those patients 282 of them have completed their initial PAM Survey. With the completion of the survey, each patient will receive an activation level from 1-4 which will give the provider a better understanding of their patients along with identifying what care approach will be best suited for them. The more activated the patient is we expect to see better health outcomes. Patients who are lower in activation report less satisfactory interactions with their healthcare providers resulting in them feeling overwhelmed, making any self-management task more difficult. As they continue the program we expect to see progress being made towards their healthcare goals. ORA currently has 72% of their patients who have completed the survey, ranking them at number 4 in New Jersey.

Evaluation/Conclusion: While we are still in the beginning stages of the implementation process of the CKCC program, the main objective of administering the PAM surveyed which has been going well. Ocean Renal Associates experienced some issues with scheduling patients that had drifted away during the pandemic, through some revision the RCC has made great strides in meeting with these patients and will continue to meet performance goals. The implementation process design conducted will continue to be used for future projects.
**Title:** Assessment of CentraState Medical Center’s Weigh of Life Program and the WellPower Community Online Platform

**Name:** Eleni Aradas

**Preceptors:** Preceptor: Maryellen Dykeman RN, MSN, Director of Population Health
Direct Supervisor: Brandon Eldershaw: Supervisor of Community Wellness

**Agency:** CentraState Medical Center: Health Awareness Center

**Purpose:** To evaluate the engagement and participation of members of CentraState Medical Center’s Weigh of Life program and the WellPower Community discussion forum.

**Significance:** According to the National Health and Nutrition Examination Survey (NHANES), around 31.1% of adults were considered to be overweight (Fryar et. al., 2021). High BMI has been linked to the growing epidemic of non-communicable diseases such as cardiovascular disease and diabetes, where the risk for these conditions increase as BMI increases. Despite having such a profound impact on the risk for non-communicable diseases, these risks can be diminished by weight loss (World Health Organization, 2021). According to the World Health organization, supportive communities can play a significant role in one’s path to weight loss and overall wellness by supporting individuals on their wellness journey (World Health Organization, 2021). Furthermore, socializing can positively contribute to the health and wellness of aging individuals (Elder Care Alliance, 2017).

**Method/Approach:** The weight loss program (Weigh of Life) meets in-person every Tuesday for 16 weeks and is run by two instructors who host a lecture/discussion to discuss various aspects to living a healthy lifestyle, including diet and physical activity. Participants are provided with supplemental resources like goal sheets and informational packets to further elaborate on the weekly material. Furthermore, they have access to on-demand videos and resources, through the WellPowerNJ platform (which is also used by Weigh of Life Members that are exclusively online). Participants were also introduced to the WellPowerNJ application—which serves as a discussion forum to build relationships and motivate users—and given instructions on how to use it. Each Friday, a discussion prompt was posted in the WellPower Community that referenced material from the meeting held earlier in the week to further engage participants. Participant feedback for both in-person classes and the online platform was collected using a mid-course evaluation, which was answered by 7 of the 12 in-person participants. Engagement with the online course content was further viewed to assess content views.

**Outcomes/Results:** The evaluation form showed that every participant enjoyed the in-person meetings and interacting with the other participants. Six of the seven respondents said they would participate in this class again and would recommend this course to others. The online discussion forum showed mixed results where around half of participants reported using the online discussion forum. Engagement remained low for the first half of the course, increasing slightly after motivational phone calls were implemented.

**Evaluation/Conclusion:** Overall, Weigh of Life’s in-person meetings were successful in garnering interaction from the participants. Participants enjoyed the weekly meetings and talking to the instructors and other participants about their experiences, accomplishments, and struggles. On the other hand, participants needed more encouragement to use the WellPower Community. In the future it may serve to send out surveys to online participants, and begin check in calls earlier in the course.
Internship Abstract

Title: Pediatric Bloodspots: Keystone to Change

Name: Valeria Arias

Preceptors:
Direct Supervisor: Ann Marie Hill, NAACCR Consultant

Agency: North American Association of Central Cancer Registries (NAACCR)

Purpose: To analyze state laws and regulations on bloodspots in order to match up with the National Cancer Institute’s (NCI) SEER cancer registries.

Significance: NAACCR, along with the NCI, maintains records of cancer cases across the United States. States also collect pediatric bloodspots at birth to identify infant risks for genetic diseases. Bringing together these two sources of information offers researchers an opportunity to understand how pediatric cancers develop. The prevalence of Pediatric Cancer in the United States is estimated to be at 15,590 children and around 2000 children, ages 0 to 19 die yearly (NIH, 2021). This project will be able to identify markers that will aid in the development of a cure for certain pediatric cancers. In order to access these bloodspots, policy plays an impactful role in gaining permission to access this information. Understanding these laws and policies will allow the NCI and NAACCR to link the data for research purposes.

Method/Approach: A database was created including all U.S. states and territories that have cancer registries and collect bloodspots. Laws and policies for each state were then reviewed to determine how this data might be accessed for research purposes. Knowing the laws and regulations in order to contact the different departments is essential for a thorough search and following proper protocol. The database has 13 sections titled A through M. Sections A through C focus on location, D is a drop down if the state facility allows research, E and F discuss regulations and confidentiality agreements and concerns. Section H through K discuss residence location, collection, and viability as well as fee for access to the bloodspots. With the collection of this data, the National Cancer Institute will know what bloodspots are available to jumpstart their revolutionary initiative that can change the future of pediatric cancer.

Outcomes/Results: The Newborn Screening Translational Research Network provided the necessary data to complete the excel database. The primary information was listed through the NBS site, but the information had not been updated since 2020 so further investigation and research was required to update and insert the proper information in the database. Through various hours of data collection, a composite list of consensual and approving states was found. Many states that had large amounts of bloodspots collections opted to not be part of the study. However, a quarter of the states and territories of the United States opted to not provide a response at this time, but were open to the possibility of providing bloodspot samples down the line.

Evaluation/Conclusion: National Cancer Institute, North American Association of Central Cancer Registries, and all other affiliated parties continue to plan and lay the foundation for this project. This database will be used as a guide in future proceedings for the pediatric bloodspots project. This is a multibillion dollar project that potentially may revolutionize our understanding of pediatric cancer by providing researchers with a means to link genetic risks from cancer with actual diagnoses.
Title: Developing New Marketing and Collaborative Initiatives with Non-Traditional Methods

Name: Joseph Arning

Preceptors: Alexander Deeb, CEO and CoFounder

Agency: ClassHook

Purpose: To develop a strategy for ClassHook to onboard new ambassadors, and expand their services to new educators across the globe.

Significance: Teachers want to show students why their learning is important in the real world, but they often lack resources to accomplish this goal. Presenting the relevancy of topic information increases retention. Retention drop-off is 56% in 1 hour, 66% after a day, and 75% after 6 days (Terada, 2017). ClassHook curates and organizes content from popular media that educators can use to reinforce their lessons. This curated Content Library of age-appropriate short TV and movie clips aligned to school standards allows educators to spend more time teaching and less time searching for ways to “hook” their students. The goal of this project was to increase the number of new ambassadors for ClassHook.

Method/Approach: The process of increasing the number of ambassadors at Classhook with finding the most active users. A list of Classhook’s most frequent users was compiled, and all users on the list received an email to register for the program. Participants who expressed interest in the program received an application to fill out. Each applicant was evaluated based on time spent using ClassHook, social media following, and their answers to the short question provided. Ambassadors either moved forward to the next stage or were sent more information on how they could be a better fit. The next stage of evaluation began with teachers making a short video about how they use the service and how it benefits them. If their video made it past this stage, they were sent to complete an onboarding call with one of the founders. This 15 to 30 minute call helped them get an ambassadorship link, access to discounts, and one-on-one access with the founders to request video content.

Outcomes/Results: The goal of this process was to gain 100 ambassadors by the end of May. 04/05/2022 there were 24 ambassadors signed up and fully onboarded and 15 awaiting approval. The most effective method was the targeted email campaign. The majority of educators contacted came directly from a list of teachers who used ClassHook in a month.

Evaluation/Conclusion: One issue that arose was the initial emails contained graphics, which caused most of them to go to people’s spam folders. Subsequent emails did not contain images and the response rate was higher. Based on the response rate of the email campaign it is clear that teachers do express interest in classic, and are willing to become ambassadors when presented with the opportunity. In the future to improve the process using automated email tools will allow more educators to be contacted.
Internship Abstract

Title: Boost New Brunswick!

Name: Lyzette Asare

Preceptors: Manuel Castaneda: Director of Community Health

Agency: Live Well New Brunswick

Purpose: To promote the need of getting booster shots for COVID-19, and increase the amount of residents getting boosted in New Brunswick.

Significance: There have been massive breakthroughs regarding vaccines for COVID-19. However, as of February 2022, New Brunswick pharmacists report COVID-19 boosters have fallen off and are hovering rates under 50%. New Brunswick reports 37% of the eligible population has been boosted. Live Well - Vivir Bien New Brunswick utilizes their social media platforms to educate their viewers with COVID-19 educational posts. With the information provided through the social media platforms along with the updates, New Brunswick residents and the online community can gain an abundance of information that promotes getting vaccines and booster shots. The “Feel Well” resource is to improve the overall quality of one’s health by caring for one’s mind and body. Boost New Brunswick will promote COVID-19 boosters by providing answers to many questions or concerns people may have about the booster.

Method/Approach: Educational, interactive, and relatable content were put out on Live Well’s Instagram, Twitter, and Facebook social media platforms to encourage the residents of New Brunswick. Two flyers were created to go out each week on Tuesdays and Thursdays only concerning booster shots. Each week will provide information and or great reasons to get boosted. The posts ranged from young adults, 65 and older, masks mandates, travel safety, how important it is to spread the word, and etc. Each post will be unique and could either be very elaborate or very simple and straight to the point. Analytics of impressions, reach and engagement will be collected from each social media platform in comparison to original COVID-19 content.

Outcomes/Results: For the month of April, the data demonstrates that the engagement for all three platforms were roughly the same ranging from an average of 1-2%. The number of times the posts were seen on Instagram was an average of 46, while the number of the posts seen on Twitter was an average of 88. Twitter had a significantly higher impression rate than Instagram. The potential viewers a post can have on Instagram was an average of 37, while the potential viewers a post can have on Facebook was an average of 39. Instagram and Facebook had a very similar reach. In comparison to the original COVID-19 posts, the Twitter impressions averaged to about 76 posts and the Instagram impressions averaged to about 46 posts. The reach for Instagram was about 42 viewers and the reach for Facebook was around 68 viewers. The engagement for all three platforms was roughly the same averaging 2%-3%.

Evaluation/Conclusion: With the positive impact from Twitter, two of the Boost New Brunswick posts have made the top tweet and top media tweet on the Live Well Twitter page coming in with 207 and 138 impressions. Twitter caters more towards young adults, however Facebook caters more toward the older demographic. The previous COVID-19 posts had a higher reach than the BNB posts, therefore to better the results of the Facebook reach, the previous posts should be analyzed and the BNB posts should implement the same format concept yet different information.
Title: Investigating Sources and Solutions for Maternal Health Disparities

Name: Yara Assadi

Preceptor: Dr. Gloria Bachmann

Agency: Women’s Health Institute at Robert Wood Johnson Medical School

Purpose: To investigate the source of numerous maternal health disparities, the theoretical frameworks for resolving these disparities, and examples of health programs that aim to ameliorate health outcomes in vulnerable female populations.

Significance: The United States has the highest rate of maternal mortality and severe maternal morbidity in the developed world (GBD 2015 Maternal Mortality Collaborators, 2017; Tikkanen et al., 2020). New Jersey, the resident state of this research institution, ranked 47th is one of the worst rates of maternal mortality and morbidity rates in the country. In addition to the elevated maternal mortality rate, there are significant and unwavering health disparities within those statistics, especially across racial and ethnic groups. For example, Black mothers are four times more likely to die than white mothers before, during, and after birth (Creanga et al., 2015; UnitedHealth Group, 2021). There are significant social determinants of health at play, and effective interventions have yet to be implemented in many New Jersey and US hospitals.

Method/Approach: Research was conducted through a literature search of journals and peer-reviewed articles that were found on reliable search engines including Google Scholar, PubMed, and Rutgers Library. Other resources used in the research were reliable websites such as non-profit organizations and websites that are run by government agencies, such as the CDC, and local maternal mortality review committees of 48 jurisdictions (42 states, five cities, one U.S. territory). The search terms included were “maternal mortality”, “racial disparities”, “disparities”, “prevention”, “health programs”, and other related search terms.

Outcomes/Results: The leading causes of pregnancy-related deaths among non-Hispanic Black women were cardiomyopathy, embolism, preeclampsia and eclampsia, cardiovascular and coronary conditions, and hemorrhage. Nearly two out of three maternal deaths were preventable (Davis et al., 2019). Common themes identified as contributing factors to the leading causes of pregnancy-related death among Black women included knowledge deficits on the part of patients and providers, inadequate training and/or personnel, lack of coordination in the management of patient care, and unmanaged chronic conditions. These incidents are not only preventable at the time of delivery, but they are also preventable through adequate prenatal care. Other risk factors of low health literacy were low socioeconomic status and incarceration status.

Evaluation/Conclusion: Though the responsibility for managing these contributing factors ranges from the patient to the provider to the systems of care, the public health community and the state government has a role to play in addressing them. With initiatives such as Nurture NJ, where New Jersey is availing state dollars and legislative support for initiatives to ameliorate maternal health outcomes, the healthcare industry should establish action-oriented solutions, such as improved training for maternity ward personnel (managing patient’s risk, i.e. the use of anticoagulants and thrombolytics to prevent embolisms), and improved patient education on warning signs associated with their chronic conditions. The Women’s Health Institute also partners with local and state governments, which further enforces the relationship between the scientific literature and practical applications in clinical settings.
Internship Abstract

Title: Electronic Medical Records (EMR) Filing and Assessment

Name: Ashley Atubi

Preceptors: Assistant CEO: Aditi Khadkikar, Medical Records/ Direct Supervisor: Vicki Ciampa

Agency: Green Brook Regional Center

Purpose: To maintain the safety and confidentiality of patient medical records and making them easily accessible to patients’ healthcare providers and staff within Green Brook Regional Center.

Significance: Under the American recovery and reinvestment act of 2014, all public and private healthcare providers, and eligible professionals were required to adapt and demonstrate meaningful use of EMR records in order to maintain their current Medicaid and Medicare reimbursement levels. EMR records are used to improve quality, safety, and efficiency while reducing health disparities. Used to engage with clients and their families while improving care coordination in the population, electronic medical record systems have been created to maintain privacy and security for patient health information, classifying it as meaningful use. Shown in its many benefits to healthcare organizations everywhere, the use of electronic medical and health records have spread worldwide. Having the health professionals practice and understand the benefit first hand will help the process of advancing to paperless records.

Method/Approach: Over the course of three months, the filing and review of client medical records were divided into categories based on the medical need for each client. The category most used is the consults, which was what was filed into the digital records. Looking to condense the information retained in the physical client charts, the digital records will be used to initiate accessibility and efficiency for doctors and nurses on the floor. Charts for all 65 clients have been filed and organized onto the facility's global database and acts as a place for review when with their client.

Outcomes/Results: Due to the routine of having paper and physical records for each client, there was some push back from some of the doctors and nurses. Some of the staff refuse to scan and upload newly added consults and documents as needed, making the use of these electronic medical records difficult. The only way to achieve meaningful change was to break habits and show them the convenience of having digital records. However, this was hard to get used to without the help of the facility. After working with paperless records for a month, the health professionals in the facility have found it to be more convenient. Having to sign out client charts and carry the heavy binders, it has been easier for them to make use of this change. The next step would be to make the records more electronically portable by using iPads or tablets to bring to the clients’ rooms when they are being treated.

Evaluation/Conclusion: Without the facility’s assistance in providing electronic devices, the convenience and accessibility of the electronic medical records will become useless and nonessential. In order for this to happen, investments on tablets or laptops will be essential for the shift in habits and culture. As a way to advance this process, training on how to use the technology and how to keep up with the newly dated documents will be critical in the future and overall establishment of electronic medical records in Green Brook Regional Center.
Internship Abstract

Title: Reducing Racial Disparities In Cancer Care with PINPOINT

Name: Rebecca Ayala

Preceptors: Julianne Ani, MPH, Lab Manager

Agency: Rutgers Cancer Institute of New Jersey

Purpose: To empower Black cancer patients and their families to improve their knowledge and awareness about cancer therapies and participate in shared decision making with their doctors.

Significance: Racial disparities in cancer care have been a constant trend and continue to affect traditionally underserved populations. Among these are the Black and African American populations who have lower cancer survival rates and lower rates of accessing timely and quality care. Black men have a 19% higher cancer mortality rate than White men while Black women have a 14% higher cancer mortality rate than White women. Furthermore, mistrust of healthcare providers and researchers is common in the Black community due to historical mistreatment such as in the Tuskegee Syphilis Experiment. Consequently, the research study PINPOINT strives to empower Black patients and help patients and their families share informed decision making.

Method/Approach: The PINPOINT online intervention was created to be patient-centered and culturally tailored to improve knowledge and awareness about precision oncology and clinical trials, foster informed decision-making, and increase favorable attitudes about clinical trials. In-depth key informant interviews were conducted virtually with Black cancer patients, relatives, and providers to provide feedback and perspectives on the PINPOINT prototype. After providing informed consent, eligible participants were asked to complete a baseline survey. Participants then attended a virtually conducted 1-1.5 hour recorded interview session collecting insights and feedback used for transcription purposes and data analysis. Participants then completed an exit task assessing PINPOINT’s usability and consistency of the website. Quarterly CAB meetings made up of Black cancer advocates, relatives, and oncology providers in the community were conducted in collaboration with further prototype developments.

Outcomes/Results: A total of 18 key informants participated in an hour long interview reviewing the PINPOINT prototype website. The interviewees were Black cancer patients (n=10), relatives of Black patients with cancer (n=5), and providers in oncology settings (n=3). In review of the data collected, the key themes discovered were user interface design, chatbot, stock photos, content, and cultural relevance. User interface design had positive feedback regarding the organization, color scheme, and navigation of the website. Half of participants disliked the navigation of the chatbot construct while the other half appreciated the simplicity, design, and layout of it. Stock photos around the site were critically evaluated on representation, and participants found the content to be helpful and understandable, and appreciated the resource section of the site (Financial Aid, Transportation, Wig Resources, Legal Education) and videos. Most participants felt that the site was culturally relevant, trustworthy, credible, and effectively addressed community concerns in regards to distrust and cultural mistreatment.

Evaluation/Conclusion: A majority of participants found the website to be very helpful, informative, and overall had high usability ratings. There were some technical difficulties and stock photos that needed to be changed. Following these minor revisions, pilot testing will be conducted with Black cancer patients who have not yet made a decision on their treatment. Following pilot testing, a larger scale randomized controlled trial is planned to determine efficacy. The PINPOINT intervention will then be made available to the public for broad dissemination.
Title: New Jersey Economic Outlooks

Name: Tia Azzi

Preceptors: Michael Lahr, Distinguished Research Professor

Agency: The New Jersey State Policy Lab, Rutgers University-New Brunswick, NJ


Significance: Throughout the year, New Jersey needs to provide policy for the state based on previous and current economic trends. In 2010, the New Jersey state underestimated the 2020 population trends by over 400,000 (US Census, 2020). This is an extreme change in the New Jersey state, as the anticipated 2020 population is used to guide public policy decisions that impact important issues like poverty and social justice in New Jersey. This is especially important as the census reports that 9.4 percent of New Jerseyans live in poverty (US Census Bureau, 2021). United Way of New Jersey, argues that the census underestimates those in poverty, by creating a new threshold known as ALICE, or Asset Limited, Income Constrained, Employed (United Way, 2018). ALICE workers constitute around 63 percent of New Jerseyans as of 2018 (United Way, 2018). The numbers are expected to be worse due to the pandemic. The New Jersey State Policy Lab at Rutgers University is funded by the New Jersey State. The Policy Lab utilizes researchers to provide new perspectives on state policy. The research will contribute to understanding overall trends in New Jersey, to aid the state in creating an economy that addresses key societal issues through equitable solutions. Having accurate data allows the state to see where it went wrong, providing it with the ability to better predict and understand population changes.

Method/Approach: This project utilized the U.S. Census information for the state of New Jersey. Sorting through the data included various steps. The State, County, and Municipal population data are organized into three categories: Population of 2010, Estimated Population of 2020, and Population of 2020. After the data was found and organized, population changes at a State, County, and Municipal level were subtracted by looking at the 1) 2020 Estimate - 2010 Population, 2) 2020 Population - 2020 Estimate, and 3) 2020 Population - 2010 Population. After, conditional formatting was used to show significant outliers and negative numbers. Finally, the data was imported into ArcGIS and organized them using quartiles, creating maps for Population Density, Percent Change, and Count Change.

Outcomes/Results: New Jersey consists of 21 counties and 564 municipalities. The top four most densely populated counties in New Jersey are all located in the Northern Region. These counties are Bergen, Essex, Hudson, and Union County. When looking at the percent change in the counties, Hudson and Essex County have a greater than 6% change in the population estimates. Three out of the four counties in Central Jersey had a 4% to 6% change between the estimated 2020 population and the actual 2020 population change. Meanwhile, the Highlands, Shore, and Southern Counties generally had less than 4% change. When looking at the Population 2020 minus Estimate 2020, the counties in Northern and Central Jersey had a range between 18,198 and 63,227 individuals.

Evaluation/Conclusion: To reevaluate the accuracy of the Census Change, further research must be done yearly to track county population change. There will be new revisions on households and population for each year. The 2030 Estimate and the 2030 Actual Population must be evaluated similarly to ensure the government is accurately measuring the population. The severe underestimation impacts the way the government distributes and determines government representation at the state and federal levels.
Title: Rutgers Occupational Noise and Hearing Conservation Program and Area Monitoring

Name: Temilola Babalola

Preceptors: Direct Supervisor: Peter Skeels, Manager, Health & Safety Services
Project Supervisor: Rosa Kramper, Health and Safety Specialist

Agency: Rutgers Environmental Health and Safety

Purpose: To conduct area monitoring and noise measurements in various new or renovated Rutgers buildings to identify noise exposure, protect individuals from harmful noise exposures, and provide proper signage if harmful noise exposures have been identified.

Significance: Every year, REHS conducts noise monitoring and assessments to identify areas that could have potential to expose individuals to high levels of noise. According to Rutgers Occupational Noise and Hearing Conservation Program (2000), this program applies to all Rutgers employees with noise exposures that equal or exceed the OSHA Action Level of 85 decibels on the A-scale. REHS identifies the source of the noise that individuals may be exposed to through noise surveys, exposure assessments and noise exposure control strategies. The goal of this program was to identify and measure any areas that may have loud noise levels “produced by stationary sources (such as mechanical equipment) and encountered during specific work activities, monitor actual employee noise exposures to determine if they exceeded OSHA regulatory limits” (REHS Standard Operating Procedures for Noise Surveys and Assessments, 2000) & post signage in spaces that exceed the noise level of 85 decibels.

Method/Approach: To begin this assessment, it required a Noise Survey Instrument, Instrument Sound Level Calibration Check calibrator, and the REHS Stationary Source Noise Survey Form. The noise survey instrument that were used is the Quest Sound Level Meter Model #2400 and the Instrument Sound Level Calibration Check calibrator used was the Quest Q/C-10 Calibrator Model #QC 10. These instruments were used in mechanical rooms with equipment such as the Central Heating Plants, Chiller Plants, and Building Mechanical Equipment rooms containing chillers, pumps, and compressors in various Rutgers Buildings to determine whether or not the mechanical equipment being used exceeds 85 decibels. Data was collected from four mechanical rooms on Busch Campus

Outcomes/Results: Of the sample size cohort (n=4), noise monitoring was conducted in the following buildings: The Center for Integrative Proteomics Research, Pharmacy building, Waksman building, and Richard Weeks Engineering building all on Busch Campus. Of the four buildings, the mechanical rooms in Waksman and the Pharmacy building had mechanical equipment that exceeded the OSHA Action Level of 85 decibels. Readings for the Waksman building vacuum pump were measured at 90 dBA, using the Quest Sound Level Meter, which was seen as severe. The Richard Weeks Hall chilled water pump (#2) and the secondary chilled water pump (#4) read 87 dBA. The mechanical rooms in The Center for Integrative Proteomics Research and Pharmacy building did not have equipment that exceeded 85 dBA.

Evaluation/Conclusion: The assessment indicates that there were mechanical rooms that have equipment that exceeded the OSHA Action Level of 85 dBA and some mechanical rooms did not exceed that. The results from the noise survey instrument, the Quest Sound Level Meter Model #2400 indicates that mechanical rooms that exceeded the 85 dBA will require REHS to install signage indicating that hearing protection is required in the space when working operating any of the equipment there.
Internship Abstract

**Title:** RWJUH-Somerset Healthy Eating/Active Living Initiative (HEAL)

**Name:** Victoria Bertrand

**Preceptors:** Direct Supervisor: Serena Collado, Community Health Director

**Agency:** Robert Wood Johnson University Hospital Somerset-Somerville, NJ

**Purpose:** To promote healthy eating and active living in Somerset County by increasing fruit and vegetable consumption.

**Significance:** Chronic disease contributes to 7 in 10 deaths in the United States each year. In Somerset County, four of the top leading causes of mortality are cardiovascular diseases, stroke, cancer, and Alzheimer’s Disease. Approximately 23.5 percent of adults were considered obese in 2017. In 2019, 53.3 percent of residents in the county were food insecure. In 2020, 8.5 percent were considered food insecure, an increase of 3.8% since 2018. To combat this problem, RWJUH Somerset has implemented a County Community Health Improvement Plan to promote a healthy lifestyle for all residents by the year 2025. This project will focus on expanding the consumption of fruits and vegetables in the community to help prevent and manage chronic disease.

**Method/Approach:** To address the objectives of the Community Health Improvement Plan (CHIP), research was conducted to assess the indicators and strategies. The first step focused on the needs assessment including the populations who were most food insecure and the consumption of healthy foods by race and ethnicity. In Somerset County, 90-91 percent of Asians and Whites residents were reported to eat healthy foods on a regular basis. Black and Hispanic residents reportedly ate less healthy foods on a regular basis at 77-79 percent. The towns in Somerset County that were identified as food insecure were Bound Brook, South Bound Brook, North Plainfield, Manville, and Franklin Township. Currently, there is no surveillance data available for fruit and vegetable consumption in Somerset County. The next step focused on finding research and identifying the baselines and targets for the community. The last step involved outreach through collaboration with the Healthier Somerset food policy community partners. A list of partners who were interested was created for this objective. This outreach was conducted by holding meetings and inviting food bank representatives and stakeholders in the community to discuss the identified areas of concern.

**Outcomes/Results:** This CHIP objective is part of a larger strategy to address chronic disease in Somerset County by 2025. Conducting research played a key role in the progression of this objective. The metrics for this focus area were conducted through the Somerset County Health Needs Assessment and Zufall Health. About 14 percent of SNAP dollars were spent on produce in Somerset County. The estimated expenditure is $163,359.

**Evaluation/Conclusion:** To determine the project's effectiveness, the project will be evaluated by The Chronic Disease Committee who will be monitoring this information on a quarterly basis. Follow-up meetings with the food policy community partners will be conducted to assess progress. The final outcome for the project will be assessed in three years. This will help to ensure that the residents of Somerset County have access to resources and education that promote long-term healthy eating habits.
Title: Analysis of the impact of Press Ganey surveys on health organizations

Name: Filobatir Beshay

Preceptors: Kristen Shlossberg (Director of Labor Relations)

Agency: Saint Peter’s University Hospital

Purpose: To distribute and analyze the significance of the Press Ganey surveys on hospital quality, safety, patient satisfaction, and policies.

Significance: One of the most significant aspects of the biannual Press Ganey survey is the feedback that management receives from their employees. This feedback is used to determine the effectiveness of the methods employed by the manager. This feedback is directly correlated to the efficiency of the different departments and is used to rank these departments and their managers in tiers. Tier one is the best and most efficient department and manager while tier three is the worst and least efficient department and manager. These tiers aid upper level management in improving the inefficiencies within their hierarchical structure.

Method/Approach: The 2020 Press Ganey survey was used as a starting point to determine the hierarchical structure of each manager within the organization. With the help of the human resource information systems analyst, information was pulled and a spreadsheet was created that contained all of the employees and the manager they report to. Managers were sent an email to confirm their direct reports. And upper management confirmed the accuracy of the information. This information was then sent to Press Ganey to facilitate the production of the survey.

Outcomes/Results: There were approximately 140 emails sent out to all of the managers, and about 90% of the managers responded within the first week of receipt. These emails were sent out at the beginning of March, therefore, all of the managers have responded by now. Although the survey has not yet been distributed, we expect to gain insight on the rapport between leadership and their employees. We need this information in order to address the alarming turnover rates exhibited in our organization. It will also help determine the areas in which we should focus our attention on for improvement or change.

Evaluation/Conclusion: The Press Ganey surveys are extremely beneficial to healthcare organizations because they can help HR determine which departments are underperforming, as well as get some insight on how employees view their supervisors, which is directly correlated to departmental performance. Although the process of this survey may be long and sometimes tedious, we must fulfill our due diligence to get the most accurate results and feedback.
**Internship Abstract**

**Title:** Tuberculosis Annual Report Presentation

**Name:** Aneesh Bhave

**Preceptors:** Dr. Rajita Bhavaraju, Deputy Director

**Agency:** Global Tuberculosis Institute

**Purpose:** To analyze TB case data from ID crowd database for 2021 and create a powerpoint presentation with the data using charts/graphs.

**Significance:** In 2021, there were 7,860 confirmed cases of TB in the United States. Additionally, there were 13 million people living with a latent TB infection. New Jersey ranks in the top 10 of the highest case rates of TB in the country, where the rate is more than 15% greater (CDC, 2021). The Global Tuberculosis Institute works to collect physician reported TB infection consultation data and send reports to the CDC to identify trends in the disease in the Northeastern United States. I used the ID crowd database to analyze the data and create charts and graphs that will be presented to the CDC.

**Method/Approach:** Passive clinical consultation data on latent and active Tuberculosis cases from 2021 was gathered by the Global Tuberculosis Institute for the Northeastern United States. Case data was collected from local and state health departments, hospitals, private practices and academic settings. Cases were initially reported by healthcare professionals in their respective locations including physicians, nurses, and physician assistants. Data for 142 suspected cases of Tuberculosis were collected through the ID crowd database and exported to a spreadsheet. Case elements that were analyzed include project area, institution setting, occupation type, age, drug resistance, classification of infection, and whether the patient was HIV positive.

**Outcomes/Results:** Of the 142 latent and active cases of Tuberculosis in 2021, 97 (68%) were classified as active tuberculosis, 31 (22%) as latent tuberculosis, 12 (8%) as other, and 2 (1%) as program issue. With regards to drug resistance, 57 (40%) cases had no drug resistance, 56 (39%) had unknown drug resistance, and 12 (8%) were classified as MDR/pre-XDR/XDR, which stands for multidrug resistant and extensively drug resistant, respectively. The states where the most cases were reported were New Jersey, Virginia, and New York with 30, 28, and 20 cases reported, respectively. The highest number of cases were reported in patients aged 31-64 (57 cases) followed by 65+ (27 cases), and 18-30 (23 cases). Physicians and nurses were responsible for reporting 67% and 33% of cases, respectively. The majority of cases reported were HIV negative (58%), while only a small number were HIV positive results (8%).

**Evaluation/Conclusion:** About two thirds of the cases reported in the sample (n = 142) were classified as active tuberculosis infection. An additional 22% were classified as latent tuberculosis. New Jersey, Virginia, and New York had the highest number of reported cases in this region, and this is consistent with CDC data from the past 5 years as all 3 states ranked in the top 50% of states in reported TB infections. As is the case with most public health consultation data, this data may be used to analyze trends of TB within the Northeastern United States, but cannot be used to prove causation. The unknowns present for some of the parameters limit the ability to draw conclusions. There may also be a lack of uniformity in classifying and reporting TB cases from state to state.
Internship Abstract

Title: Middle School Extended-Day Program Coordinator

Name: Mahidul Bhuiyan

Preceptors: Alemah McMillian (Coordinator of Youth Leadership Programs)

Agency: The Civic League of Greater New Brunswick

Purpose: To assist Middle School students diminish learning loss as a result of the COVID-19 pandemic and enable students to be physically active throughout the day during the Extended Day Program.

Significance: After the COVID-19 outbreak, most public places shut down due to quarantine laws that were imposed to help the prevention of the virus's spread. Both Elementary and Secondary education systems had to stop students from going to school and planned on operating virtually. By September 2020, 67% of children under the age of 18 years old enrolled in either public or private schools reported that classes had moved to a virtual format using resources online while 59% reported that computers were provided by the children’s school or the school district (NCES, 2021). The transition that many of these young students had to go through from one environment and means of learning to another could be challenging. Based on the percentage of children that have been affected, it is evident that assistance in certain school districts could help students diminish the loss of education and become more physically active. A survey-based evaluation will later address the situation of the student’s educational environment since the return to school after the COVID-19 restrictions.

Method/Approach: A questionnaire was conducted on a group of students regarding their learning ability and their level of being physically active during and after the quarantine period. The group consisted of 16 students that attend the same middle school and ranged from grades 6 to 8. The questionnaire consisted of four simple questions that required an answer of either yes or no, which are: 1) Were online classes more challenging compared to classes before quarantining? 2) Were classes more challenging after returning to school from having online classes? 3) Were you physically active for at least 30 minutes a day during quarantine? 4) Are you physically active for at least 30 minutes a day after returning from quarantine?

Outcomes/Results: Of the sample size (n=16), 2 students (12.5%) answered "yes" while 14 students (87.5%) answered "No" to the first question. 12 students (75%) answered "yes" and 4 students (25%) answered "No" to the second question. 3 students (18.75%) answered "yes" and 13 students (81.25%) answered "No" to the third question. Finally, 16 students (100%) answered "yes" to the last question.

Evaluation/Conclusion: Three-quarters (n=16, 75%) of the students answered yes to the second question stating in-person classes were now more challenging after returning from online classes. All students (n=16, 100%) answered yes to the last question stating they have at least 30 minutes of physical activity after quarantine. Tutoring outside of classes, providing problem-solving activities, and allowing students to be physically active in playground settings serve as an effective strategy to a) help improve educational performance and overcome situational challenges, and b) allow students to be physically active and healthy.

Citation: https://docs.google.com/document/d/1xDV02hyg0d77A.URDbqEp5HMihL9xREWb5grgsVfc0M/edit
Internship Abstract

Title: Health Education and Application Movement in Special Olympics New Jersey

Name: Nicole Binkley

Preceptors: Amelia Hamilton, Health Programs Director

Agency: Special Olympics New Jersey

Purpose: To maintain and grow both health education and awareness within the Special Olympics New Jersey community by developing a program to further extend health screenings and knowledge-based programs.

Significance: There is an increased need for awareness and inclusivity for individuals with ID, an intellectual disability. Some examples of an intellectual disability are ADHD, Autism, Down Syndrome, Fetal Alcohol Syndrome, etc. Through the Inclusive Health Needs Assessment (2021) completed for the state of New Jersey, this specific group of individuals drastically differs in their data compared to individuals without an ID. For example, 26% of adults with ID self-reported that their health status was poor, in comparison to only 7.4% of adults without ID. Also 13% of those with an ID have diabetes and 66% are overweight or obese. This compares to the 7.7% of individuals without an ID having diabetes and 58% being overweight or obese. These statistics are just a few examples of why this needs to be addressed. Evidence-based interventions will be able to work on these statistics and create a more diverse area of knowledge regarding individuals with Intellectual Disabilities.

Method/Approach: This approach involves program planning, evaluation, and implementation, which includes detail-oriented work. Planning is the most important part that will provide a successful execution of the project. This method plans events and interactions with the participants ranging from zoom meetings to in-person health screenings at the Special Olympics games. In the past health screenings, it was found that 26% of adults with ID reported themselves to have a poor health status, while the percentage of those without an ID reporting this is only 7.4%. Another piece of data to show the need for inclusive health with individuals having an ID, is the difference in rates of both diabetes and overweight/obesity in the population. Through the approach of interaction and planning/implementation of health screenings for these individuals, their overall health will be able to be improved.

Outcomes/Results: Of the total participants who showed up for either Winter and/or Spring Olympic Games in New Jersey, there were many athletes who participated in MedFest. This program allows Special Olympics athletes to receive a medical examination by a doctor, free of charge. This also helps the athlete understand their specific health needs and consult with a doctor. The health screenings offered by Special Olympics consist of dental, vision, audiology, podiatry, physical therapy, concussion, general health/wellness, and mental health screenings. The athletes benefited greatly from the experience and gave feedback that they will continue to come back and focus on their specific health needs.

Evaluation/Conclusion: This experience was extremely beneficial towards the entire community as a whole. It allowed the community and volunteers to learn about the needs of this population regarding their health and well-being as well as gave the volunteers exposure to working with the ID population. Additionally, athletes' health needs were met by completing the screenings. The spread of awareness and inclusivity towards the population of individuals with Intellectual Disabilities will continue to be one of the main focuses within this internship, as well as the Special Olympics organization.
Internship Abstract

**Title:** Finding Resources for Immigrants within Hudson, Bergen, and Passaic County

**Name:** Amndeep Binning

**Preceptors:** Rania Jaludi, Case Manager

**Agency:** Church World Service

**Purpose:** To find resources and/or services that can be utilized by the immigrant and refugee clients of Church World Service within Hudson County, Bergen County, and Passaic County.

**Significance:** Many people immigrate to the United States and these individuals come with different backgrounds and different life experiences. Getting restarted in a new country with no resources can be challenging and difficult to navigate. In order for the new immigrants and refugee clients to have resources that they can turn to as they are settling into their environment, it would be beneficial for the clients of Church World Services to have access to organizations and other places that provide resources like food and clothing.

**Method/Approach:** The method that was utilized to find the appropriate resources for clients involved locating, evaluating, and collecting information about the resources. Locating resources was not difficult; however, finding resources that contained contact information and information on how to utilize the resource was a bit more challenging. Evaluating the resource required being able to see if the resource(s) had a phone number, email, website, or a physical location(s) that was accessible within one of the three counties. Collecting information about the resources and/or organizations required getting in contact with the organizations in a timely manner and for the organizations to communicate effectively.

**Outcomes/Results:** As a result of the method, it was possible to create a list of updated resources that can be utilized by the clients of Church World Service. As a result, there were a total of 68 new resources that were available. Within Hudson County, there were 21 food pantries and food banks and 5 clothing donations (26 total of resources) found. Within Bergen County, there were 18 food pantries and food banks found and 4 clothing donations found (22 total of resources). Within Passaic County, there were 17 food pantries and food banks as well as 3 clothing donations found (20 total of resources).

**Evaluation/Conclusion:** With the updated list of resources and organizations, it would be important to update the list regularly. This would continue to ensure that the list has the correct information and is corrected in places where it is needed. The list of organizations can be utilized to build connections within the community as well as being able to assist the people in need of supplies. The list of resources can be beneficial and a source of relief to new immigrants and refugees who are trying to build a new life for themselves.

**Citations** Annotated Bibliography
Internship Abstract

**Title:** Promoting Healthy Living Through Social Services To The Homeless

**Name:** Tiffany Boateng

**Preceptors:** Kelsey Lynch, Co-Founder and Intern Advisor of ARM

**Agency:** Archangel Raphael's Mission (ARM) - New Brunswick, NJ

**Purpose:** To ensure the homeless community in the New Brunswick area receives a healthier lifestyle through ARM’s social services and mobile shower unit.

**Significance:** On January 26th, 2021 there were a total of 6,210 households which includes 8,097 people were experiencing homelessness in the State of New Jersey, according to the 2021 Point-In-Time Count. A total of 1,493 were identified as chronically homeless, 835 were unsheltered on the night of the count. Essex County is still in the lead with the most homeless people in New Jersey with 1,693 people which is about 21% of the entire state of New Jersey. Due to the fact that food insecurity and lack of hygiene are critical issues in the New Brunswick population, Archangel Raphael’s Mission will assist the homeless by providing them with daily necessities.

The Archangel Raphael’s Mission is a non-profit organization that provides food, hygiene, and mobile shower units in the spring season to those who are experiencing homelessness. Lastly, Archangel Raphael’s Mission will continue to do outreach programs to spread awareness and gain donations to care for the homeless.

**Method/Approach:** Everyday of the week, dinner meals are being served to the homeless from 6-7pm at the United Methodist Church in New Brunswick, NJ. ARM interns support by coming to either one of the days of the week to help serve the homeless. It is not limited to just dinner meals but ARM also gives out clothing, hygiene packs or care packages to the homeless as well. The dinner service has other volunteers from the church or any other organizations to serve dinner each night. We come in by 5:30pm to begin preparing the bowls and the bags which includes the meal, bottled water, snack and utensils to give out. We must be ready to open the doors by 6pm to begin the giveaways. Furthermore, the mobile shower unit would begin later in early May when the warm weather is out. It will be held on Fridays from 11-4pm. Each participant is allowed 15 minutes to take a shower and they will be provided with a towel, set of clothes which includes, socks, shirt, pants (if available) and care packages. Showers will be cleaned by volunteers between clients.

**Outcomes/Results:** According to the data collected, 50-70 meals are served out to the homeless each night at UMC in addition to giving out about 21-23 meals to Motel 6 in East Brunswick. About 4-8 volunteers come out each night to help with dinner service and the clothing/hygiene unit. Most nights we do not have any leftovers of food but on slow nights there will be at most 10 leftovers of food.

**Evaluation/Conclusion:** ARM is doing an awesome job on giving back to the community in New Brunswick, NJ. They have given the homeless community access to food, showers, clean clothes and essential items for daily care. Hygiene is often neglected by the community because they do not have the access to a shower. This program promotes a healthier lifestyle by giving away basic necessities to them.
Internship Abstract

**Title:** Understanding Communication Methods for Public Policy and Research

**Name:** Amanda Bruce

**Preceptors:** Patrice Harley and Angela Centellas

**Agency:** New Jersey Gun Violence Research Center

**Purpose:** To effectively use communication methods to report gun violence research outcomes to laypersons and influence policy decisions.

**Significance:** Effective communication is imperative in discussing public policy and the research that goes into it. Without such methods, laypersons would likely not understand policy research and therefore be less inclined to advocate for changes.

**Method/Approach:** Numerous methods are in practice to effectively communicate research findings regarding gun violence and interpersonal violence. As a part of the strategic process for the communication of science, I had three major goals: understand trends in gun violence research, visualize and communicate research outcomes, and plan and coordinate the center’s Rutgers Day and Research Day programs. These three goals were met by conducting literature searches around gun violence and interpersonal violence, examining the social media landscape surrounding gun violence, writing newsletters, creating data visualization posters, coordinating with local visual artists, merchandising companies, advertising companies, and colleagues to create a successful Rutgers Day tent.

**Outcomes/Results:** As a result of the methods, my fellow interns and I were able to successfully plan and coordinate the center’s Rutgers Day, Research Day, and Student Day Programs. We were able to do this by building a broad understanding of the scholarly literature of the gun violence research that exists, as well as who the leaders are in gun violence research. I also have a better grasp on how to extract the most relevant information from research articles and translate them into language that lay people can understand and connect with, as well as the ability to speak to data on gun violence, using poster visuals discussing academic research.

**Evaluation/Conclusion:** Throughout the course of this experience, our work was evaluated through collaborative discussions with our communications team as well as research staff and the executive director of the center. I first presented literature and a social media review to my preceptor Ms. Harley. I also assisted in finding artists to participate in our Rutgers Day and Student Day programs to discuss their artwork around gun violence and the discussion around it. Ms. Harley then presented my findings to the executive director and leadership team for approval for inclusion in Rutgers Day, Research Day, and Student Day. Through collaboration with the research team, we learned that having an organized system for research articles organizing our topics such as IPV and suicide benefitted the communications team in making visuals that accurately reflected research outcomes, thus benefiting the public who would eventually see them.
Title: Violence Prevention Research Analysis and Program Redesign

Name: Anna Busler

Preceptors: Paul Sarnese, Assistant Vice President for the Safety and Security Department

Agency: Virtua Health Inc.

Purpose: To compare current practices of violence prevention against revised regulations and identify program gaps in order to implement solutions to close the identified gaps to ensure employee safety.

Significance: Incidents of violence are four times more common in healthcare than any other industry. Within the Virtua Health organization, total employee injuries throughout all Virtua Health sites have increased 110% from 2019 to 2021, jumping from 962 injuries to 2028. Virtua Health currently implements a violence prevention program that includes workplace violence prevention training.

Method/Approach: A statistical analysis was completed in order to compare and assess the trends of workplace violence that employees experience each year. The analysis includes statistics ranging from the year 2009 until 2021 for each Virtua location. There are 10 current Virtua locations. Tables and graphs were created per each Virtua location for 9 categories of injuries. Those categories include Total Employee Injuries, Total OSHA Recordable Injuries, Total Back & Neck Injuries, Total Hand & Finger Injuries, Total Shoulder Injuries, Total Knee Injuries, Combative Aggressive Patient Injuries, Patient Handling Injuries, and OSHA Injury Incidence Rates YTD. Each category had graphs and tables created for every location, as well as one line graph that depicted the totals for each year as well as bar graphs that compared each location to each other per year.

Outcomes/Results: Of the sample size cohort (n=10), each location experienced an increase in all categories of injury except for one between 2009 to 2021. The category that seemed to experience a significant decline is total hand & finger injuries. In 2009, there were 166 total hand & finger injuries. In 2021, there were a total of 89 hand & finger injuries across all locations. All other categories experienced an increase in injuries from 2009 to 2021. Total OSHA Recordable Injuries increased from 224 total in 2009 to 642 total in 2021 across all locations. Total OSHA Recordable injuries is the best hallmark for an increase in healthcare violence as it is the most standardized out of all the categories.

Evaluation/Conclusion: Virtua acquired all Lourdes locations in 2019. Because of this, it is important to compare each year from 2019 thereafter. Although there are many reasons for there being significant differences between the amount of injuries in each location, it is clear that there is a spike in overall employee violence experienced over the past two years when comparing the number of injuries per year within each individual location. Because each location had an increase in every category of injuries during the pandemic (2020-2021) compared to the previous year (2019), it can be inferred that the COVID-19 pandemic was the cause of this increase. In order to improve the current state of the Violence Prevention Program to reflect the changes that have ensued due to the COVID-19 pandemic, the Violence Prevention committee will create a steering committee and subcommittees that tasks will be delegated to, and formulate new training procedures in response to potential violence, revise reporting requirements/system, update post incident management, update record keeping, and provide trainings for the entirety of all Virtua Health employees at different levels in order to ensure the most advanced and effective workplace violence prevention tactics are implemented.
Internship Abstract

Title: VIHWC Social Media Marketing Strategy Development and Analysis

Name: Nicole Candelario

Preceptors: Vanessa I. Farrell, MPH, MCHES Certified Health Coach/Health Program Consultant

Agency: VI Health & Wellness Coaching, LLC

Purpose: To develop and implement a social marketing strategy plan for VI Health & Wellness Coaching, and curating content aimed to increase the company’s engagement on various social media platforms.

Significance: Each year, about 300,000 women in the United States die from heart disease or about 1 in every five female deaths. In addition, about 1 in 16 women that are 20 & older (6.2%) have coronary heart disease, the most common type of heart disease (CDC, 2019). Most of these deaths are due to risk factors such as hypertension and diabetes – two diseases that can be controlled by diet and lifestyle changes. VI Health & Wellness Coaching, LLC, is on a mission to help busy women in leadership roles to prioritize and protect their heart health. Having a consistent and meaningful presence on various social media platforms can be an effective strategy to engage women. Utilizing social media tools will be helpful for the agency to educate women that are struggling with balancing their work and taking care of their health. It is important for women to prioritize their heart health without stopping their career, and curating content for these platforms can inspire them to continue living healthy lives.

Method/Approach: To advance the mission of inspiring women through health coaching, having a consistent and meaningful presence on various social media platforms can be an effective strategy to engage women. A social media strategy document that outlines the goals, measurable objectives, target outcomes, and other important information aimed to achieve was developed and implemented. While doing so, engaging content for various social media platforms was created to be consistently posted. Using Facebook and Instagram Insights, social media metrics were tracked and analyzed about post reach, engagement, growth, followers, and likes. Weekly discussions were held with the preceptor to discuss the progress, have an opportunity for feedback, and plan responsibilities for the following week.

Outcomes/Results: From January to March, there was a 7.27% increase in members on the company’s Facebook Group: Healthy & In Charge, now has 240 members as a part of this community the CEO & Founder built! On Instagram, there was a 7% increase from January 1, resulting in 243 followers. Within three months, there has been a consistent increase in engagement on the Facebook page (165 active members), and on Instagram. The accounts being reached on Instagram have increased by 99.2%, the accounts engaged have led to a 78.2% increase, and the impressions have increased 158% to over 500 now.

Evaluation/Conclusion: With social media presence being an integral part of how the world communicates in this day and age, creating engaging written, photo, and video content for various platforms will be critical for brand awareness. VI Health & Wellness Coaching’s Facebook and Instagram accounts have had an overall positive change in performance as the months go by. There will continue to be an increase in exposure, growth, and engagement with the social media strategy developed and implemented. With continuous analysis and tracking of social media metrics, the necessary improvements will be made to achieve the company’s goals.
Title: Decreasing Neck & Back Pain  

Name: Maria Carapuccci  

Preceptors:  
Direct Supervisor: Hetal Sojitra, PT, DPT  
Project Supervisor: Rasik Sojitra, Office Manager  

Agency: Care and Cure Physical Therapy  

Purpose: To analyze the causes behind the increased number of patients with neck/back pain and spread awareness on the importance of physical activity.  

Significance: Individuals who work from home are in need of preventive exercises and treatment exercises to relieve their pain. Not enough people are aware of how much damage bad posture can do to their body over time. Research shows that you should stand up from your seated position at least every hour to allow your body to rest the muscles engaged in sitting all day. The number of patients with back and/or neck pain has increased since the pandemic started due to working from home conditions. Patients that transitioned from the office to their home said that they found themselves taking less steps throughout the day. This evidence comes directly from patients who work from home and who are experiencing neck or back pain as a result. Awareness must be spread about the importance of good posture, lifestyle changes, and beneficial exercises.  

Method/Approach: Between February 1, 2022 and April 1, 2022, complaints from fifteen out of twenty patients complaining about neck/back pain were working from home doing mostly desk work. Research was conducted using International Journal of Health Sciences, John Hopkins Medicine, and interviews with the doctor, on prevention, and causes and treatment of back pain. A list of lifestyle changes and effective exercises that target the reduction of neck/back pain was compiled into Google Docs. A variety of stretching and strengthening techniques were taken by photo and video in the office with patient permission. These were posted to the agency’s Instagram with the incorporation of reels, a popular marketing tool. Consistency was kept by using the same hashtags on each post which is a method used to draw more attention to the post. In total, 8 posts were created between March 11, 2022 and April 20, 2022.  

Outcomes/Results: For patients visiting the office, a handout was placed in the waiting room that lists do’s/don’ts and three effective exercises to help neck and back pain. The first reel posted to the Instagram account was a success by receiving 33 likes and 3 comments from new followers. Twenty-six followers were gained from March 11, 2022 and April 20, 2022 which shows that reels do work. The second reel posted received 24 likes, making it the second most successful post out of the 8 total. The Instagram account went from 88 followers to 114 followers as a result of educational posts created to help others.  

Evaluation/Conclusion: The handout in the waiting room was appreciated by patients as it acted as a reminder to complete their exercises on their off days from physical therapy. Most patients said they wish they knew about preventative exercises earlier. In the future, it will be crucial for patients to be aware of the correct work-from-home setup and incorporating physical activity into their daily routine.
**Title:** HIV and the PWID Population in Newark, NJ

**Name:** Gaëlle Casimir

**Preceptors:** Corey Rosmarin-DeStefano, Director of Research

**Agency:** North Jersey Community Research Initiative

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**Purpose:** To assess the PWID (people who inject drugs) population in Newark, New Jersey in relation to HIV (human immunodeficiency virus).

**Significance:** Injection drug use is a serious, deadly issue that affects approximately 775,000 Americans (Lansky et al., 2014, 1). In Newark, New Jersey alone, there were 5,543 people living with HIV in 2019 (Newark, n.d.). Injection drug use is a major risk for HIV contraction. The North Jersey Community Research Initiative (NJCRI) works to provide resources to those suffering from addiction within the Newark community. Specifically, NJCRI will be working with the National HIV Behavioral Surveillance program to conduct research on PWID (people who inject drugs) in relation to their risk for HIV.

**Method/Approach:** In addition to a literature review on the PWID population, there is a goal to conduct at least 10 professional key informant (PKI) interviews and at least 15 community key informant (CKI) interviews before PWID surveying begins. This is done so that as much information as possible can be gathered, so as to 1) better understand the population being surveyed and 2) develop relevant questions to ask this population. Each PKI and CKI interview was/will be transcribed in detail (including quotes) to look back on for future project development (i.e., PWID survey question creation). Once PKI and CKI interviews are completed, IRB approval will be obtained before beginning large-scale project development in June.

**Outcomes/Results:** Through the literature review and pre-survey interviews, it was found that people who inject drugs are not only at risk for HIV, but Hepatitis C as well. The primary subgroups of PWID are 1) young, white males, 2) sex workers, 3) those who are homeless, and 4) high-functioning addicts. People may not engage with harm reduction centers due to the stigma associated with drug use and/or a lack of access to a center. Upon completion of the PWID survey research project, the NHBS will have a better understanding of the drug patterns exhibited by this population, what their risk behaviors are for HIV, what their needs are, and how harm reduction services can be improved.

**Evaluation/Conclusion:** Process evaluations are conducted each step of the way. Before a series of interviews begins, an interview guide is submitted to the CDC which is critiqued and reviewed for suggestions. Satisfaction surveys could potentially be provided to the surveyees afterwards. The project should be reviewed during the next PWID cycle (approx. 4-6 years from completion) to gain ideas on how to move forward with the next project, and to see how the population has changed since then.
**Internship Abstract**

**Title:** The New Jersey Chamber of Commerce Foundation Website Redesign Project

**Name:** Janet Cazares

**Preceptors:** Donna Custard, President

**Agency:** New Jersey Chamber of Commerce Foundation

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**Purpose:** To update the New Jersey Chamber of Commerce Foundation website to ensure that content is up-to-date, make it easier for corporate and community partners to navigate, and that the website reflects the organization's values.

**Significance:** The New Jersey Chamber of Commerce Foundation (NJCCF) provides programs and products to New Jersey schools. It is partnered with state and national non-profits to prepare underrepresented young adults for high school completion, entry into the workforce, the military, and post-secondary education. The flagship program of the NJCCF is Jobs for America's Graduates New Jersey (JAG NJ), which serves 600 opportunity youth annually. The NJCCF website hosts information about the JAG NJ and other NJCCF programs for school administrators, parents, and other stakeholders. The current website is outdated and unengaging, and the information on the website is lengthy. Upgrading the website will provide partners and potential stakeholders with timely, easy-to-read information that the NJCCF staff can update.

**Method/Approach:** A job advertisement was drafted outlining a time frame of 1-3 months and a project budget of $5,000. The advertisement also highlighted that potential candidates need to have an intermediate experience level with website development, have attention to detail, and could utilize their expertise to present a proposal for improving the website as part of the application process. The advertisement was posted on the freelancing platform Upwork. Then, a spreadsheet of all of the website's pages and features was created for the preceptor to determine which pages and content needed to be added or entirely deleted. Also, the spreadsheet served as a guide to the web developer in making changes to the website's layout. Meetings were held over Zoom to discuss project milestones and benchmarks, and communication with the web developer occurred through the messages feature on the Upwork platform.

**Outcomes/Results:** Five out of twenty-five pages were deleted. These include the monthly calendar and events page, the LearnDoEarn curriculum login page, the STEM page, the STEM R U Ready for College Mobile App page, and the disability and inclusion page. The website redesign project has reached the design approval milestone, and the website’s homepage is nearly complete. The main changes to the website’s homepage include incorporating JAG NJ’s red and blue logo colors and featuring the program more prominently, the heading fonts were changed, the website header and drop-down menu were redesigned, and the newsletter section was made more compact.

**Evaluation/Conclusion:** The website redesign project is necessary to ensure that NJCCF presents itself as a leader in opportunity youth services and that the successes and functionality of the JAG NJ program are showcased so that it receives more aid and recognition. Communication and feedback are crucial to the success of this project, which will result in a more modern website layout that has editable functions for the NJCCF staff and is easy to navigate.
Title: Catalyzing Fresh Definitions of Modern-Day “Leadership” for Equity
Name: Saidy Cedano
Preceptors: Elsa Falkenberg, Principal Investigator
Agency: Urban Institute

Purpose: To analyze how Robert Wood Johnson Foundation can bring leadership development innovators together through various research and communication networks to create holistic leadership development programs for equity-focused traditional and non-traditional leaders.

Significance: For equity-focused leaders, development programs are meant to provide opportunities to form community with other equity leaders, evolve creative leadership capacities, and increase social justice education awareness. While funding for internal and external leadership development has grown over the past decade, 71% of organizations still share hesitancy that their leaders are able to lead their organization into the future. The Robert Wood Johnson Foundation contracted the Urban Institute to research effective leadership development program models that both provide the type of social justice dialogue needed and ensure equity leaders are well-nourished throughout their commendable endeavors.

Method/Approach: The project’s goals were centralized into four core questions: [1] What can be learned from leaders? [2] How can organizations or institutions enable and prioritize equity focused efforts? [3] What tools, training, and resources can RWJ provide to help these equity leaders? and [4] How can funders support new models of collective leadership? A literature review regarding current leadership challenges and development opportunities was completed. Most of my work has regarded supporting the literature process. Then I assisted with one to two interviews held with key stakeholders.

Outcomes/Results: Thus far, literature review and interview findings suggest that current development programs reinforce elitist leadership structures, diminish equity-leaders’ ability to engage with and learn from community-orientated and non-organizational projects, place leaders of color within predominantly-white development programs that disregard various socioeconomic conditions to leadership and change, and more. Effective interdisciplinary leadership programs tend to congeal critical human development opportunities outside of mere professional ones, such as addressing learning to drive change with a personal investment, building resistance against burn out, remaining agile, enforcing social emotional learning skills, creating personal barriers, and more. Leadership development programs within cohort styles tend to provide these human development opportunities the most.

Evaluation/Conclusion: Public and private sector entities have responded to the protests by giving some of these leaders mandates and/or funding to accomplish enormously difficult racial equity goals, but these amazing individuals are still profoundly under-resourced and facing entrenched resistance to change. Our goal is to help transform existing leadership development programs and inspire new collective leadership development programs so that they provide substantially more and better support for leaders of color who are seeking to advance racial justice in the wake of the 2020 Black Lives Matter protests and are now facing resistance and backlash.
Title: System Strategy 12-County Environmental Assessment

Name: Angelina Cerasani

Preceptors: Dane Denby, Director of System Strategy, Northern Region
             Veronica Barone, Manager of System Strategy
             Annie Steelman, Senior Vice President of System Strategy

Agency: RWJBarnabas Health

Purpose: To identify trends of specific geographic service areas and provide a snapshot of market factors that impact strategic decisions to make educated allocations of resources.

Significance: Today, residents of New Jersey still struggle to access healthcare services to maintain health. Currently, 13 out of the 21 counties in NJ struggle to access primary care (Cadmus & Weaver). The pandemic made accessing healthcare even more challenging as NJ saw a 6.8% increase in insured patients in 2019 (Hollom-Trundy). Major health systems, like RWJBarnabas Health, dominate the market in an effort to provide access to care to more people in the state. RWJBarnabas Health currently owns 27.1% of the healthcare market in New Jersey. RWJBH serves eight counties but is looking to expand market share to twelve counties to accomplish their goal to bring providers to patients. System Strategy provides major stakeholders information, to make important decisions of how to distribute limited resources and move the system forward. By analyzing a variety of data, RWJBH can draw conclusions on how to address the demographic and connect them to quality healthcare.

Method/Approach: The overall approach was to prepare and analyze 1.8 million entries through the usage of pivot tables, graphs, and formulas including Vlookup in Excel. The data was acquired from projection data from healthcare database, SG2. The data was then categorized into different elements of market share and volume by institution, service line, geographic location, age cohort, system, etc.

Outcomes/Results: From the data, RWJBH service area covers majority of NJ residents, that are growing at a slow pace. They are the market leader, but have an opportunity to improve market share in a competitive market. Compared to NY & PA hospitals, NJ residents are choosing to receive services in-state. RWJBH service lines have consistently grown, but did experience a slight decline in 2020. RWJBH continues to grow market share in the traditional 8-county area and has great opportunity in the 4-county area. RWJBH continues to serve majority of Medicare and Commercial insurance payors, but a higher self-pay/uninsured population than the market. Outpatient services continue to expand across all service lines.

Evaluation/Conclusion: The environmental assessment is performed to better understand and assess the population’s need in healthcare services and the health system’s positions and opportunities. From the results, RWJBH has an opportunity to grow in the new four county area. RWJBH currently has low market share in these 4 counties but that is likely due to lack of facilities in these regions. The population is growing at a slow pace, with the largest increase being in the 65+ cohort. RWJBH should focus on outpatient services and supporting declining service lines including orthopedics and neurosciences. Overall, RWJBH should focus on building a presence in the four new counties to connect more people to quality healthcare.
Internship Abstract

Title: NDSS Adult Summit: On the Road Promotion

Name: Nicole Chalecki

Preceptors: Direct Supervisor: Rachel Grimm Health Program Manager- Aging and Caregiving

Agency: National Down Syndrome Society

Purpose: To promote the National Down Syndrome Society's three one-day Adult Summit: On the Road events, in order to increase the knowledge of resources available for adults with Down Syndrome and their caregivers.

Significance: There are an estimated six million people in the world with Down syndrome, who are predisposed to certain medical conditions like congenital heart defects, sleep apnea, and most commonly Alzheimer’s disease (GDSF, 2013). In recent decades the life expectancy for people with Down syndrome has increased drastically from 25 in 1983 to 60 today (GDSF, 2013). With quality educational programs, stimulating home environments, good health care and positive support from family, friends and the community people with Down syndrome tend to lead fulfilling and productive lives. This evidence shows the lack of resources and knowledge in past decades is the reason for a short life span in individuals diagnosed with Down Syndrome. The National Down Syndrome Society works hard creating opportunities like the Adult Summit to educate families and self-advocates about their options and resources available.

Method/Approach: The National Down Syndrome Society’s health team actively recruited experts to speak on subjects which included topics such as mental health, comorbidities, education and employment. Informational emails highlighting the agenda and speakers were sent out to prospective attendees along with previous attendees that increased ticket sales. Social media content was created and posted to spread awareness of the event and its relevance to the target audience. Lastly surveys were created and distributed during and after the event to gain feedback for future Adult Summits. The surveys were analyzed to determine which areas and topics were a success that could be used again for future Summits.

Outcomes/Results: In total 266 tickets were sold for the in person and virtual Adult Summit: On The Road in Jacksonville, Florida. Over the course of two days there were seventeen speakers that included doctors, professors and researchers that spoke on topics such as the importance of Down syndrome research, Alzheimer’s and Down syndrome, and COVID-19’s impact on adults with Down syndrome. There were a total of thirteen exhibitors providing resources to self-advocates and caregivers of Adults with Down syndrome. Outcomes for the Adult Summit: On The Road in Indianapolis, Indiana, will be available in June.

Evaluation/Conclusion: Survey results conclude all sessions were beneficial and informative. Respondents all said they would come to future NDSS events. Surveys provided for the next Adult Summit in Indianapolis have concluded families want to learn more about employment options for their loved ones with Down syndrome, along with the transition between high school and college or into the workforce.
Purpose: To analyze the effects of an Anti-Candida diet on decreasing Candida overgrowth in the intestinal tracts of high risk patients.

Significance: The microbiome of the intestinal tract is a complex system which consists of various organisms, one being Candida spp. While harmless, overgrowth of Candida spp. can be associated with intestinal mucosal infections. Overgrowth of this fungus can be determined through stool tests which can indicate higher than normal levels. Symptoms associated with overgrowth include fatigue, abdominal pain, bloating and constipation. The implication of an Anti-Candida diet has been introduced in some practices in order to limit the intake or eliminate the intake of sugars and carbohydrates. This is based on the reasoning that Candida is a fungus which primarily feeds on foods which break down into glucose. This evidence indicates that there is growing research in the effects of diet modifications on decreasing Candida spp overgrowth.

Method/Approach: For this project, there were ten patients assigned to follow and track their progress with the diet program Dr. Boesler assigned to them. During this initial evaluation, a Medical Symptom/Toxicity Questionnaire (MSQ) is administered which has patients rate their symptoms to help find underlying causes for the overgrowth. An MSQ is then given to the same patient with every follow up visit in order to track progress, as a decrease in total score indicates a decrease in symptoms or symptom severity. The Anti-Candida Food Plan published by The Institute for Functional Medicine is then emailed to the patients after their first visit. Follow up phone calls and interviews are conducted to go over the patient's adjustments to their new diet and answer any questions they may have.

Outcomes/Results: Of the sample size (n=10) 6 (60%) patients showed a decrease in their MSQ total while 4 (40%) patients showed an increase in MSQ total. Each patient had their progress tracked over the course of 3 MSQ's, including the questionnaire from their initial evaluation. Of the 6 (60%) patients that revealed a decrease in their MSQ total, 4 (67%) patients indicated a decrease in the specific areas of the digestive tract and joints. Of the 4 (40%) patients who noted an increase in their MSQ total, 2 (50%) patients revealed decreases of sub sectional scores regarding digestive tract and energy/activity. All the scores above were taken in conjunction with the patients incorporating the Anti-Candida Food Plan.

Evaluation/Conclusion: At the end of the study, it was concluded that more than half (60%) of the patients saw a decrease in their symptoms due to the Anti-Candida diet as indicated by the decrease in their MSQ scores. Conversely, less than half (40%) saw an increase in their overall scores which means that the new diet did not provide much relief to their symptoms. While there are many strategies to combat Candida spp overgrowth, this study showed that modifying a diet to be low on carbohydrates and sugars can effectively decrease the symptoms of such overgrowth. However, there is still much more research to be done to solidify a causal relationship as certain external factors may impact the effectiveness of a new diet. Each patient has their own individual symptoms, food intolerances and specified program assigned by Dr. Boesler. Ultimately, patient education and promotion of a new diet can aid in Candida spp overgrowth but the most successful results are seen with the most compliant patients.
Internship Abstract

Title: Human Papillomavirus Vaccination Graphic

Name: Grace Chelius

Preceptors: Project Supervisor: Sandy Cowan, President of NJCCC

Agency: New Jersey Cervical Cancer Coalition

**Purpose:** To educate at-risk populations on the dangers of Human Papillomavirus and the effectiveness and benefits of HPV vaccines in order to decrease negative health outcomes and increase vaccination rates.

**Significance:** Human Papillomavirus (HPV) is the most common STI in the United States, with over 43 million infections in 2018 alone (CDC, 2018). Although 9 out of 10 HPV infections clear up on their own within the first two years, if left untreated HPV can cause a variety of health issues, ranging from genital warts to different forms of cancer (CDC, 2018). As of 2018, only 39.9% of people ages 18-26 in the United States have at least one dose of the HPV vaccine, while only 21.5% had received the recommended number of doses (CDC, 2018). The willingness on the part of parents and young adults to get their children or themselves vaccinated is also an issue for HPV vaccination rates. In fact, many parents cited that vaccinating their child against HPV will increase the likelihood that they will engage in sexual intercourse as their main reason for not getting their child vaccinated (CDC, 2018).

**Method/Approach:** Data was collected from a series of national surveys to better understand the reasons behind Human Papillomavirus vaccine hesitancy in parents of children ages 11 to 18. After analyzing data from the CDC and the National Cancer Institute, parents were divided into five categories of overarching reasons behind not vaccinating their children against HPV: Safety concerns, lack of knowledge of potential risks of the vaccine/contracting HPV, lack of recommendation by physicians, child not sexually active, and not necessary for child. Statistics on the safety and effectiveness of HPV vaccines were also gathered and categorized to address each of the five major hesitancy categories. Using the five categories that were identified, an infographic was developed and created to be made into a pamphlet and distributed to participants and attendees at the upcoming NJCCC 5K race in April.

**Outcomes/Results:** The number of pamphlets distributed at the 5k race was recorded and divided into three categories: pamphlets taken by race participants (runners), pamphlets taken by general attendees (non-runners), and pamphlets that were left over. Of the 200 pamphlets that were printed, 53 were taken by race participants (runners), 82 were taken by general attendees (non-runners), and 65 were left over. The number of attendees who opted to sign up for the NJCCC general information email system was also recorded. 74 attendees who were not previously in the email network were subsequently signed up for future correspondence.

**Evaluation/Conclusion:** The results of the pamphlet distribution indicate that many people who were in attendance at the annual 5k were interested in learning more about the dangers of HPV and the efficacy of HPV vaccines. A large number of the attendees and participants, as well as many members of NJCCC are people who have been affected by cervical cancer in some shape or form. The hope for this outreach effort was to educate people on the dangers of HPV and the efficacy of the HPV vaccine in hopes that they would be able to make an informed decision about vaccinating their children.
Title: Pfizer Investigational RSV Vaccine Phase 3 Clinical Trial

Name: Michelle Cheng

Preceptors: Imene Beche, Senior MFM Research Coordinator

Agency: Saint Peter’s University Hospital

Purpose: To screen for healthy pregnant mothers to receive Pfizer’s investigational Respiratory Syncytial Virus (RSV) vaccine to assess the efficacy, safety, and immunogenicity of the vaccine.

Significance: Prevention of RSV infection in infants is a significant unmet global medical need. RSV is the leading cause of bronchiolitis and viral pneumonia in infants and can lead to fatal respiratory distress, especially in those with risk factors including underlying disease or absence of an effective healthcare system. Worldwide, RSV kills almost 118,200 children annually, with about half of those deaths occurring in infants 6 months (Shi et al., 2017). In the United States, RSV is the leading cause of infant hospitalization, with an annual hospitalization of more than 60,000 in children 12 months and younger (Parikh et al., 2017). There is currently neither specific treatment for RSV infection nor a vaccine to protect against the disease. Pfizer has developed an investigational RSV vaccine that will be administered to pregnant women, who will produce antibodies that will be transferred transplacentally to the fetus, that will protect infants against RSV disease.

Method/Approach: The ongoing investigational study on Pfizer’s RSV vaccine is a multicenter, randomized, double-blinded, placebo-controlled study to assess the efficacy, safety, and immunogenicity of the ID or placebo in infants born to healthy mothers vaccinated during pregnancy, as well as the safety and immunogenicity of the mothers themselves. Mothers were deemed eligible for the study based on a set of inclusion and exclusion criteria. Inclusion criteria included healthy women between the age and gestational age of 18-49 years and 24-36 weeks, respectively; negative HIV antibody test, syphilis test, and hepatitis B antigen test; and an ultrasound performed at 18 weeks of pregnancy with no significant delta abnormalities. Exclusion criteria included having a body mass index greater than 40 kg/m2, bleeding disorders, history of severe reaction to vaccines, in vitro fertilization, high risk pregnancy, history of complicated birth, maternal health complications, and immunodeficiency disorders. Mothers who passed both screenings were enrolled in the study and followed up for 12 months after vaccination, while their babies were followed up 12 months after birth.

Outcomes/Results: From Saint Peter’s, a total of 531 mothers were screened. From that, 233 mothers failed the inclusion screening and 298 mothers passed. Of the 298 that passed the inclusion screening, 115 failed the exclusion screening and 183 passed. Of the 183 mothers, 180 mothers stated that they were uninterested in participating, while 3 mothers were enrolled into the study and given the RSV vaccine. On the international scale, almost 6,300 mothers have been vaccinated with 5,400 infants born from different research sites. Pfizer’s goal is to have a total of 10,000 participants enrolled.

Evaluation/Conclusion: Three out of 531 mothers have been enrolled in the study from Saint Peter’s research site. Because the study is ongoing and international, Pfizer has yet to compile all the data necessary to conclude the efficacy of the investigational vaccine on pregnant women. More participants and data will be needed before concluding the study.
Internship Abstract

Title: Understand Ways to Improve Foot Conditions of Senior Diabetic Patients

Name: Youn Cho

Preceptors: Direct Supervisor: Jiyong Jeon, DPM

Agency: Good Align Foot and Ankle Inc. - Fort Lee, NJ

Purpose: To analyze the need for podiatric care patients and improve the patient care experience.

Significance: Foot care is crucial in promoting a healthy lifestyle, especially for older adults. Individuals with foot pain are likely to be reluctant to exercise, walk, or move their bodies in general. In contrast, those with healthy feet are much more likely to be not hesitant in participating in those activities. A meta-analysis on 31 studies has revealed that for adults 45 years and older, 24% of them experienced frequent foot pain and 15% of them experienced frequent ankle pain (Thomas et al., 2011). Furthermore, older adults often struggle to perform basic foot care on their own, so a routine visit to a podiatrist is recommended to get their foot condition examined and treated. Therefore, podiatric care is essential for older adults to pursue a healthy lifestyle that promotes physical and mental wellbeing.

Method/Approach: A literature review conducted by utilizing credible sources that were collected from scholarly databases such as Google Scholar and EBSCO Host. Initially, general information regarding foot care and podiatry was collected from several academic literature to explore any problem faced in the field, which has revealed that many people neglect foot care. CDC database was used to gain knowledge on the relationship between foot care and diabetes patients. Then, a further literature search was conducted to find the population most severely affected by this issue and identify the barriers that prevent them from receiving foot care. Finally, the relevant articles were organized to form a comprehensive literature review that promotes older adults to receive podiatric care routinely.

Outcomes/Results: Seven of the research articles used for the literature review have emphasized the significance of foot care for diabetic patients. Four of them indicated that seniors with diabetic symptoms are at crucial risk for getting their wellbeing impeded if foot care is neglected. CDC database has claimed that older adults with diabetic symptoms are very likely to experience nerve damage in their feet along with poor blood flow. These combinations make individuals at high risk for developing foot ulcers that can permanently damage their feet. Physical limitation and lack of education were considered to be the two most significant barriers to foot-care practices (Matricciani & Jones, 2015). An article has recommended that risk identification, foot exam, prevention and management of high-risk conditions, patient education, and provider education can aid diabetic patients to prevent serious foot damage (Mayfield et al., 1998). One study has revealed that the integrated care model of primary-care based annual diabetic review with foot examination and educational initiatives by the general practitioners and nurses has significantly improved the patients’ overall attitudes toward foot care and responsibility for it (Donohoe et al., 2000). References for literature mentioned can be accessed here.

Evaluation/Conclusion: The project’s success can be evaluated by feedback from expertise in the podiatric field on the literature review. Although finding articles that covered the topic of diabetic patients and foot care was unchallenging, it was difficult to find literature that highlighted the successful cases for improving foot care of diabetic patients in real life. Clinics and hospitals should apply the successful methods mentioned in studies in their practice to enhance patient care.
Internship Abstract

**Title:** Expanding Access to Health and Hygiene Resources to the Homeless Population in the New Brunswick Area

**Name:** Shelina Chotrani

**Preceptors:** John El-Maraghy, AEMP & Kelsey Lynch, RN, BSN | Co-founders, Intern Supervisors

**Agency:** Archangel Raphael's Mission (ARM)

**Purpose:** To reduce the health disparity gap in accessible health and hygiene services to individuals in Middlesex County communities through volunteer recruitment.

**Significance:** For every 10,000 people in the United States, 17 people experience homelessness (National Alliance to End Homelessness, 2022). Homelessness widens the gap between individuals and their access to health and hygiene resources as well as perpetuates the severity of new and existing health problems this vulnerable populace may face. Housing is the most essential – but challenged – need, followed by the need for regular meals and adequate clothing (Fleury et al., 2021). Archangel Raphael's Mission (ARM) recognizes that health and hygiene access has been identified as an extremely overlooked service in most urban communities, including New Brunswick. The nonprofit provides nightly, community dinners to the homeless through partnerships with local businesses. On average, ARMS provides 50-70 meals a night. Through the means of social media, ARMS aims to curate a stockpile of content to share and engage with others within the community to attract and recruit volunteers to provide health and hygiene services.

**Method/Approach:** Social media was identified as the primary planning tool for all events relating to ARMS volunteer recruitment. Posts were uploaded to Instagram stories to spread awareness of the cause at hand– to expand equal health and hygiene access in New Brunswick– and to inform students and other community members that volunteering opportunities are available. The direct message feature on Instagram was utilized to message sorority and fraternity organizations in hopes of recruiting students, given the initiative of completing community service and outreach hours in return.

**Outcomes/Results:** After collecting data from the weekly meal log– which records the number of meals served nightly, the number of meals leftover after each service, and the number of volunteers present nightly– specific days within the week were identified to need more volunteers. An Instagram post was crafted and shared which included a link to a GoFundMe and a description of what a typical ARMS volunteer experience consists of. In the span of 18 days, the GoFundMe met more than two-thirds of the requested donation, $1000. Of the interested individuals looking to volunteer, college students were the majority. Most of these students are either affiliated with sorority and fraternity organizations or are dietetic majors.

**Evaluation/Conclusion:** In conclusion, the volunteer recruitment was successful and ARMs was able to increase awareness of their organization. The GoFundMe link will remain active for further monetary donations. The social media content created throughout the span of the internship is considered evergreen and will be utilized between now and the future.
Title: Assessment of Drug Prevention and Recovery Outreach Efforts

Name: Moumita Chowdhury

Preceptors: Frank Greenagel, Recovery Supervisor
Field Supervisor: Jewel Savvides, Peer Support Supervisor
Task Supervisors: Cindy Charles, STAR Case Manager, and Brenda Rawles, Family Support Coordinator

Agency: Prevention Links - Roselle, NJ

Purpose: To maintain outreach efforts in the STAR and Family Support programs by creating and developing marketing strategies and collecting and inputting data for drug prevention and recovery.

Significance: In the United States, 21 million people have at least one addiction, with only 10% of those addicted getting treatment (Yerby, 2021). In Union County, 4% of the population suffers through substance use, with 48.6% of there being an unmet substance abuse treatment demand (NJ Drug and Alcohol Abuse Treatment, 2020). The unmet demand represents the need for a larger network for outreach. Prevention Links provides support services to those suffering through addiction via outreach, awareness, and prevention programs. Unfortunately, due to the pandemic, Prevention Links was underserving and not reaching participant goals. The STAR program has a minimum goal of 40 participants, and in January, there were less than 10. The Family Support program’s minimum is 70 participants, and in January, there were less than 40. This project will use outreach techniques to create partnerships with other organizations in order to gain participants and resources that will help participants.

Method/Approach: There are four phases in the outreach plan. The first phase is making initial contact with the organization and getting the contact information of a case manager, director, or coordinator. The second phase is reaching out to the contact person and sending them information about the STAR program or Family Support program. The third phase is arranging a meeting to discuss collaboration and the last phase is establishing recurring meetings. The first phase of outreach was completed in this project by utilizing a list of organizations to contact in order to create partnerships. By completing this phase of outreach, it allows Prevention Links to garner more interest and create mutually beneficial relationships. Participants are able to reap the benefits of partnerships, while Prevention Links is able to create awareness in different areas.

Outcomes/Results: The work that is being done through this project is part of a larger scope of outreach methods. A total of 75 organizations were contacted for the Family Support team, with 42 being successful. Twenty-six organizations were contacted for the STAR team with 20 being successful - a success rate of 77%. The organizations that are successfully contacted are put into a spreadsheet for easy access so that the rest of the phases can continue.

Evaluation/Conclusion: Prevention Links is an organization that works with various sides of recovery, whether it be helping the families of those in recovery, directly helping those in recovery, or preventing drug abuse. The success of the project will be determined by the success of the outreach events and partnerships, which will be completed by the task supervisors monthly by the organization monthly by the organization.
Title: Plant Focused Nutrition Pilot for Tuberculosis Patients

Name: Madison Clark

Preceptors: Rajita Bhavaraju

Agency: Rutgers, Global Tuberculosis Institute (GTBI)

Purpose: To improve the health and treatment outcomes of Tuberculosis (TB) patients at the Rutgers, Global Tuberculosis Institute Lattimore Practice through a plant-focused nutrition pilot program combining education and lifestyle modifications.

Significance: Tuberculosis remains a leading infectious disease cause of death worldwide, with an estimated 1.5 million TB deaths each year. Many TB patients are in low socioeconomic status (SES) and are at higher risk for chronic disease comorbidities, such as heart disease, type 2 diabetes, obesity, and cancer (Gupta et al. 2009). TB patients experience a worsened gut microbiome due to the intensive 6-9 month TB antibiotic treatment regime. This can lead to reduced immunity and treatment outcomes, including lung shadowing, pulmonary infection, and pneumonia (Ding et al. 2021). According to the World Health Organization, poor diet and lifestyle are major contributing factors to these chronic diseases. People of low SES are most affected by TB and malnutrition, creating a negative feedback cycle. Evidence suggests that implementing a whole-food, plant-focused eating program in TB patients can reduce chronic disease comorbidities and subsequently improve TB treatment outcomes.

Method/Approach: In order to address chronic disease comorbidities in TB patients, a whole-food, plant-focused nutrition pilot program will be developed for TB patients at the Rutgers, GTBI Lattimore Practice focused on limiting processed foods, salt, oil, and sugar and increasing fruit, vegetable, whole grain, and legume consumption. The pilot program will run for 5 months and provide eligible participants lifestyle change education and weekly food packages of whole plant foods. The first step in developing the pilot program was to conduct a literature review looking at data on nutrition and TB patients and the effects of plant-focused eating patterns. Next, the project must acquire grant funding. For the aims of this program, the PNC Charitable Trust Grant was selected and an application was prepared and ready for institutional review and submission. The next step was completing an IRB protocol for interventional research with human participants; the application has been prepared and is awaiting review and submission. Additionally, components of the pilot program were finalized, including educational materials, a nutritional assessment, and weekly food packet details.

Outcomes/Results: Throughout the semester, the foundation for the whole food, plant-focused nutritional pilot program for the GTBI has been developed. The grant application for funding and IRB protocol for research approval have been completed and supplementary materials for the program have been developed. This program will be the first whole-food plant-focused nutritional pilot program aimed at improving chronic comorbidities in TB patients in hopes of demonstrating improved treatment outcomes in this patient population.

Evaluation/Conclusion: Participation and effectiveness of the pilot-program will be evaluated by October 1st, 2022. 2-3 participants will complete the 30-day pilot program. Patients will have questionnaires, bloodwork, and vital signs taken at the start of the program for baseline data and again at the end of the program to determine the effectiveness of the program. The outcomes of this project will provide the framework for integrating a plant-focused nutrition-education program as part of the standard TB care at the Lattimore Practice.
Internship Abstract

Title: Using Social Media to Promote Health Education to College Students

Name: Caroline Clarke

Preceptors: Sandy Dawoud MA, College Health Initiatives Program Manager

Agency: Step Up, Vax Up - Newark, NJ

Purpose: To promote health equity and vaccine education among college students across social media for a statewide contest encouraging health education.

Significance: COVID-19 vaccines have been authorized for use for people above the age of 5 years to protect people from becoming sick or severely ill with COVID-19. There are 47 colleges and universities in New Jersey offering degrees, many of which have mandated immunization against COVID-19 as a prong in their mitigation strategies as campuses reopened for in-person instruction. Step Up, Vax Up is the newly launched program from The College Health Initiative supported by the Partnership for Maternal and Child Health of Northern New Jersey and the New Jersey Department of Health. The campaign’s main project was a contest marketed to New Jersey college students to promote peer-to-peer COVID-19 education through a podcast or video submission. The growth and maintenance of the Instagram account, along with sufficient resources on the website, is essential in growing and sustaining a network of college students for future program endeavors and ensuring educational materials are available.

Method/Approach: Research for health and COVID-19 related content was sourced from the Center for Disease Control and Prevention and New Jersey Department of Health’s websites. A fact sheet was produced to include information on the coronavirus disease, illness prevention, and vaccine information. A main tab on the Step Up, Vax Up website was added with this information as well. The Step Up, Vax Up content creation contest was launched December 1, 2021 and ran through April 30, 2022. An Instagram reel was created to promote the contest and outline basic guidelines. Instagram’s in-app analytics feature was used to track reach and engagement.

Outcomes/Results: As of April 22, 2022, the promotional video that was posted on April 8th on Instagram reached 4,626 accounts with 48 direct interactions, including 32 likes, 7 comments, 6 shares, and 3 saves. The contest yielded 14 podcast and video submissions from students at 10 different New Jersey colleges or universities with submissions received from January 11, 2022 to April 30, 2022 that used the fact page produced as one of three authorized sources.

Evaluation/Conclusion: The use of Instagram aimed at college students attracted a growing audience based on data retrieved from Instagram in-app insights. In targeting college students, social media is a powerful tool and can provide a platform for health-related outreach and education, especially in the absence of on-campus events due to strict reopening policies. Creating a platform and network through social media allows Step Up, Vax Up to continue to share resources and grow in preparation for the next contest or campaign run by the organization. As the pilot contest comes to a close, the goal is to reach at least 30 submissions.
Title: NAMI Walks Your Way Event Assessment

Name: Ryan Coleman

Preceptor: Janet Haag, Executive Director of NAMI Mercer

Agency: National Alliance on Mental Illness (NAMI) Mercer

Purpose: To assess the impact that the NAMI Walks Your Way event in Mercer County, New Jersey, has on raising awareness of mental health in the community and propose ways to communicate its positive impact to the public.

Significance: 2022 data suggests that 1 in 5 adults (20%) in the United States experience a mental illness, which is equivalent to approximately 50 million American adults (MHA, 2022). The COVID-19 pandemic has posed an even greater impact on individuals’ mental health. The prevalence of anxiety and depression has increased by 25% worldwide within the first year of the pandemic (WHO, 2022). This data indicates a dire need for access to high-quality mental health services to support individuals struggling with mental illness.

Method/Approach: The NAMI Walks Your Way Mercer County event is the county’s largest mental health awareness-raising event and NAMI Mercer’s biggest fundraiser. An assessment of the previous year’s event was conducted to determine how the event is an effective vehicle for public health communication regarding mental health. The information gathered was then utilized to create an informational brochure that would help educate the public on NAMI Mercer’s mission and further communicate the positive impact that the event has on raising awareness of mental health.

Outcomes/Results: The brochure was reviewed by the staff members of NAMI Mercer and then approved to be included in an information folder that was distributed to the individuals attending the 2022 NAMI Walks Your Way Kickoff Event on March 19, 2022. The brochure included background information on NAMI Mercer, U.S. mental illness statistics, the COVID-19 pandemic’s impact on mental health, information on the NAMI Walks Your Way event, and more. The individuals at the kickoff event greatly appreciated the brochure because the information was provided in a clear and concise manner.

Evaluation/Conclusion: A satisfaction survey was sent out to those who attended the kickoff event on March 19, 2022, to obtain feedback related to their satisfaction with the event. The survey asked the attendees a variety of questions about the event, which they were able to choose from the responses: “Satisfied”, “Neither satisfied nor dissatisfied”, and “Dissatisfied.” There was also a comment section provided at the end of each question. In regards to the question related to their satisfaction with the information they were given, including the informational brochure, 100% of the individuals who participated in the survey selected the “Satisfied” response. In conclusion, the informational brochure provided the attendees at the kickoff event a concise version of useful information related to NAMI Mercer’s mission. It also proved to be an effective way to communicate the positive impact that the NAMI Walks Your Way Mercer County event has on raising awareness of mental health in the community.
Internship Abstract

**Title:** COVID-19 Project - New Intern Training

**Name:** Arly Corado

**Preceptors:** Tracy Flood, CEO

**Agency:** Broadstreet – Milwaukee, Wisconsin

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**Purpose:** To shorten and improve the efficacy of the training period for the Midwest QA team.

**Significance:** The COVID-19 Data Project involves monitoring and creating a database of coronavirus cases, disparities and policies for every county in the U.S. The internship accepts new interns on a monthly basis and these interns must go through an orientation period. Team leads are responsible for helping in training these interns. This training period is a very critical period as it introduces the new intern to their responsibilities and answers any of their initial questions while also establishing a relationship between the interns and their team leads. For the Midwest QA team, it takes about 2-3 weeks for interns to become fully adjusted to their responsibilities and tasks. This period of time is currently too long and, during this lengthy period, team leads face the added burden of taking on the work that interns are unable to complete which leads to more missing assignments and less efficiency.

**Method/Approach:** Surveys requesting interns to rate the efficiency and satisfaction level of their training were given to 9 interns who joined during the January and February cohorts and 9 interns that joined during the March and April cohorts. The interns who joined in January and February cohorts were trained in the usual methods while the interns who joined in March and April were trained in a new method that included an updated welcome powerpoint, intern handbook, and one on one training over facetime. The January and February interns were grouped as the “old cohorts” while March and April interns were grouped as the “new cohorts” and their answers were compared.

**Outcomes/Results:** Of the “old cohorts” sample size (n=9), 100% of the interns said their training period took 2 weeks or more while 89% expressed a satisfaction level of 2 or less out of 5 with 1 being not “very unsatisfying” and 5 being “very satisfying”. In comparison, of the “new cohorts” sample size (n=9), 11% of the interns said their training period took 2 weeks or more and 11% expressed a satisfaction level of 2 or less out of 5 with 1 being not “very unsatisfying” and 5 being “very satisfying”.

**Evaluation/Conclusion:** The lower percentage of dissatisfaction and 2 weeks or more training periods is indicated by the lower percentages indicated by the “new cohort” in comparison to the “old cohort”. Overall the change in training proved to have a positive effect on the satisfaction level of the interns and shortened the length of training. There was a correlation between increased understanding in tasks and the introduction of face to face instruction.
Title: Investigating Patient Recruitment Challenges for Depression/PTSD Clinical Trials

Name: Julia Cordaro

Preceptors: Kaylee White, MA: Clinical Site Manager

Agency: Princeton Medical Institute

Purpose: To investigate and analyze the cause of the low attendance rate for participants in depression and PTSD clinical trials, and offer ideas to resolve those issues.

Significance: Mental health affects a large amount of the population and is a crucial part of overall healthcare. In 2020, there were 18.57% of adults experiencing mental illness in America, with 4.38% experiencing severe mental illness (Mental Health America, 2020). Research on mental health is increasing, which brings a greater understanding of mental illness as well as new treatment options that are tested using clinical trials. Princeton Medical Institute hosts clinical drug trials for Alzheimer's disease, social anxiety, binge eating disorder, smoking cessation, depression, and PTSD. There is a uniquely large number of patients that are recruited for depression/PTSD studies that do not show up for their pre-screening appointments compared to those of the other studies. This issue causes delay in the research process because research studies done for drug trials cannot be successfully completed without the recruitment of participants. Major depressive disorder is the leading cause of disability in America and affects over 6.7% of the adult population; Similarly, PTSD affects 3.5% of the adult population each year (Anxiety and Depression Association of America, 2021). The large prevalence of these mental illnesses highlights the importance of investigating this issue in order to find a solution that results in the enrollment of more participants into the depression and PTSD studies.

Method/Approach: A survey was done to collect feedback from participants who did not attend their prescreen appointments. Patient appointment logs were sorted through to collect contact information for those who had missed a depression or PTSD appointment. The survey was created with collaboration from the clinical trial coordinator for these trials. Participants were contacted via phone call or text message and asked to participate in the survey. The data was analyzed after collection was completed.

Outcomes/Results: Between January 1st 2022 and April 8th 2022, there were a total of 70 patients scheduled for a prescreening. Of the 70 patients scheduled, 20 attended, 10 re-scheduled at least once and completed an appointment, and 40 did not show up to the appointment. The 40 participants who did not attend their appointment were invited to participate in the survey, of which 13 completed. From the data collected, most patients reported that they did not attend their appointment because they had a conflicting obligation. 76.9% of participants reported text message as a preferred method of contact for appointments. When asked for feedback on improving turnout, three participants reported they would have rescheduled/ attended if they received a phone call, while nine reported there was nothing else to encourage them to attend. One participant asked to be rescheduled for a prescreen appointment.

Evaluation/Conclusion: Research is a crucial part in improving mental health treatment. Princeton Medical Institute works with drug companies to complete trials in order to test new and developing treatments. In order to make the most progress on these trials, participant inflow is important. This research took an ongoing issue of lack of appointment attendance in depression/ PTSD patients and investigated the reason in order to improve attendance and increase trial efficiency.
Title: Research on Social Media Use in Adolescents

Name: Rotem Cudkevich

Preceptors: Kate Blocker

Agency: Children and Screens: Institute of Digital Media and Child Development

Purpose: To research and analyze how adolescents use technology such as social media in positive ways and help educate parents on how to ensure that their children are doing so.

Significance: As of 2019, about 16.1 percent of children have had access to a phone between the ages of three and four years old (S. O’Dea, 2019). Children are growing up in the digital age and preventing children from using technology is unrealistic at this point, as more and more schools use technology and the internet to teach young students. Children and Screens aims to educate parents on how to implement healthy technology use habits for their children. The institute’s goal is to provide parents with good quality research to help their kids avoid the negative impacts of overuse of technology. Giving presentations with several expert researchers will give parents the resources and information that they need to help their children.

Method/Approach: Children and Screens gathers research done by expert researchers and prestigious journals in order to reach their findings. One of the positive impacts of technology that the institute researches is civic engagement in younger generations. The institute invited 140 preeminent experts from 10 different disciplines in 22 workgroups to compile the latest research on the effects of media on growth and development, cognition and mental health in toddlers, children and adolescents. They wanted to answer the questions, 1. How do we help teens understand the difference between real and fake news?, 2. Does participating in political activity online expose teens to risks?, 3. Why should teens get involved online?

Outcomes/Results: The institute found that in addition to exposing adolescents to risk, technology use also provides opportunities for adolescent development. Another finding is that online practices such as information seeking, social network site use, and participation in online communities promote civic engagement, which in turn can support positive youth development. Furthermore, bolstering digital media competences can help adolescents manage the risks of online participatory politics while benefiting from the opportunity to exercise their voice and create positive social ties.

Evaluation/Conclusion: It is important for parents to create an open dialogue with teens about their online activities. Furthermore, in order to be able to educate their children, parents must educate themselves first. Parents need to know how to model proper media literacy to be a good example for their teenagers. Some ways to do this are by comparing different news sources and researching which are the best and the most accurate. Parents should also encourage their children's schools to teach about digital media literacy in class. As this becomes a more and more relevant and necessary skill to have, it is imperative that it is taught about in school districts starting at a young age. As a part of this, schools should press for more accountability for their students’ activity on social media platforms.
Title: Human Trafficking Education Assessment

Name: Marlana Dant

Preceptors: Director: Diana Starace, Injury Prevention Coordinator

Agency: Robert Wood Johnson University Hospital

Purpose: To provide educational opportunities for college students to improve their understanding of risk factors and prevention methods related to human trafficking.

Significance: Research shows that 80% of human trafficking survivors in the US are US citizens. Between 2007 and 2019, New Jersey ranked, on average, in the top 12 states of reports of human trafficking (NJ Human Trafficking Coalition, 2019). Robert Wood Johnson University Hospital collaborates with The New Jersey Coalition Against Human Trafficking to spread awareness and teach educators, students, parents, and other interested parties about the dangers of these topics. Because of the population’s age and use of the internet, college students are more susceptible to becoming victims. As the pandemic continues, “there has been an increase of children vulnerable to online sexual exploitation and grooming” (Unicef, 2020). New Jersey remains a prevalent hotspot for human trafficking because of its location, dense population, proximity to major cities, and easy access to different means of transportation.

Method/Approach: The New Jersey Coalition Against Human Trafficking created a presentation that was adapted and delivered to different college groups. This project proposed an education-based intervention that has taken place on the Rutgers campus to address knowledge about human trafficking and to empower students with information to prevent human trafficking. The presentation included four polling questions to gauge preconceived knowledge that college students have about this topic. Presentations have been delivered to various classes and student organizations, either in-person or virtually. The first presentation was given to H.O.P.E’s peer mentors via Zoom and was recorded. The recorded presentation was sent to instructors of both a Women’s Health and Professional Practice Internship course to be posted to their canvas website. An in-class presentation took place in a Human Rights course to 10 students. The total number of students that viewed the presentation both virtually and in person is 15.

Outcomes/Results: In this study n=15 students. The first and last polling question asked students to evaluate their knowledge about human trafficking from 1-10. The total population of students showed that they had very little to no knowledge of human trafficking topics before the presentation began (students rated their knowledge ≤ 50%). After the presentation was complete all students scored their knowledge of human trafficking ≥ 50%. None of the students knew that 80% percent of persons trafficked in the US are US citizens. Only 20% of the audience knew that youth exploitation increased by 97% throughout the pandemic. An additional eight people viewed the presentation without the opportunity for polling.

Evaluation/Conclusion: 100% of the students (n=15) reported that their knowledge of human trafficking increased after the presentation was conducted. Only 20% of students were correct when answering the polling questions. Due to the small number of participants and the inability to conduct a campus-wide survey, further investigation is warranted. However, based on the data collected, it appears that education for this population is necessary, including ongoing education and outreach to raise awareness.
Title: Exploring Support Needs for Coping with Racial Stressors Among Young Adults Experiencing Psychosis

Name: Sydney Davis

Preceptors: Ana Stefancic, PhD, Associate Research Scientist

Agency: Columbia University Department of Psychiatry

Purpose: To analyze and understand the relationship between racial stressors and psychosis in young adults between the ages of 16 and 30 in the state of New York.

Significance: Approximately 3% of the U.S. population will experience psychosis at some point of their lives. Understanding the impact of racial stressors on young adults with first episode psychosis, and how they cope, can help inform improvements to support services that provide early intervention for psychosis. There are resources such as Coordinated Specialty Care programs that use multidisciplinary mental health teams to help psychosis, to achieve their goals, and manage their everyday lives. This project will explore racial stressors and strategies for coping as described by young adults participating in Coordinated Specialty Care programs in the state of New York.

Method/Approach: The method used to conduct the research were formal interviews between OnTrackNY employees, OnTrackNY participants, and the participants' families. During the interview the employee would ask participants or their family members particular questions in regards to racism and its stressors that they endure in their lives. In addition to racism, interviewers also asked participants how they cope with racism during these experiences.

Outcomes/Results: After interviewers collected their data, the internship preceptor presented the research to her interns. Interns deciphered the interviews and sorted them according to different coping strategies and methods that were discussed briefly before analyzing the interviews. Coping strategies consisted of reframing, having to limit exposure to racism, having particular feelings of isolation, depression, sadness, etc, being prepared or not prepared, and much more. Then interns discussed the comparison and contrast between the participants and how they cope with their stressors. As a result, interns concluded that there were many different responses from OnTrackNY participants and their families. Most interviewees felt a variety of negative emotions ranging from feelings of sadness, frustration, depression, and so on. Then there were those that claimed they felt distanced because of racial stressors or discrimination. They also felt that in order to avoid that feeling, they would have to stay away from activities or surround themselves only with people of the same race. Meanwhile, an equal number of participants and their families also claimed to have reframed their encounters.

Evaluation/Conclusion: Of the 26 interviews the interns analyzed, a significant amount of the responses fell under the category of having an experience and feeling a specific emotion, distancing themselves, or reframing the situation. Meanwhile, the other responses fell under the category of being cautious, being or not being prepared, brushing off the experience, not making sense of it, needing to be educated on the topic, and more. It is evident that OnTrackNY participants are more likely to cope with racial stressors and discrimination in their own natural way, rather than tackling the problem in more of a way that is helpful to their mental health.
Title: Providing Health and Hygiene for the Less Fortunate Population in New Brunswick, NJ

Name: Vincent De Carlo

Preceptors: John El-Maraghy and Kelsey Lynch, Co-Founders, Intern Advisors

Agency: Archangel Raphael’s Mission (ARM)

Purpose: To provide health and hygiene services to the less fortunate members of the New Brunswick community and distributing meals daily through communal dinners.

Significance: Within Middlesex County, the homeless population has increased by more than 45% over the last four years (Kratovil, 2021). On any given night there are a total of 458 households, including 629 persons, who experience homelessness. New Brunswick makes up a large majority of the aforementioned population with 176 homeless persons (NJ Counts, 2021). Archangel Raphael’s Mission (ARM) seeks to aid the homeless population in New Brunswick by organizing volunteers to help provide food, health, and hygiene services to those who are not fortunate enough to have access to such necessities. For those who experience homelessness there are significant barriers to self-care and personal hygiene, including limited access to clean showers, laundry and hand washing facilities (Leibler et al.).

Method/Approach: To achieve their mission ARM utilizes their volunteers and the United Methodist Church located in New Brunswick. At the church, each day of the week meals are prepared and distributed. Volunteers are allowed the opportunity to communicate and better understand the needs of the homeless community. The information gathered at the communal dinner aids help in accurately addressing what hygiene products and services are needed. Typically, 50-80 meals are served throughout each service with some being hand delivered to a nearby motel. The church additionally hands out clothing and hygiene products which were donated through third parties, and even provides haircuts on occasion. ARM collects donations in the form of monetary funds and hygiene products, and stores them until enough donations are made where a good amount of “Hygiene Packs” can be created and distributed. The packs vary in products and may include: bars of soaps, pads, hand wipes, hand sanitizer, lotion. The last service provided through ARM is their “Mobile Shower Unit”. The unit offers two full restrooms that are equipped with a shower, sink, and toilet. Every individual in need is allowed 30 minutes to utilize the unit and then it is sanitized and wiped down for the next individual.

Outcomes/Results: Since the beginning of January 2022, ARM and their volunteers have distributed over 5,000 meals to the New Brunswick homeless community and sponsored three events throughout the months where volunteers put together “hygiene packs”. From the allocated donations 308 “Hygiene Packs” were created. Of the hygiene products distributed there were approximately: 2100 pads, 25 bars of soap, 25 liquid soap bottles, 50 tubes of toothpaste, 50 hand wipe packages and 25 toothbrushes. The “Mobile Shower Unit” will be offered as a service on the first Friday of June.

Evaluation/Conclusion: Archangel Raphael's Mission, as a coalition, is successful in achieving their goal of providing hygiene services and promoting the health of the homeless community. Through multiple outreach opportunities such as providing daily meals, volunteers are able to not only feed those in need, but exchange pleasantries, build relationships, and gain insight on what hygiene products and services are desperately needed. Their commitment to helping the homeless ensures their dignity and opens the door so those less fortunate can work towards better opportunities for themselves.
Title: Analyzing Patient Satisfaction using Cold Therapy Hip Wrap

Name: Gabriella De Oliveira

Preceptor: Kyla Pascual, MSN, RN, ONC, CJCP, Joint Care Coordinator

Agency: Robert Wood Johnson University Hospital

Purpose: To record patient satisfaction with the addition of a Cold Therapy Hip Wrap, and assess any trends in data received.

Significance: Unfortunately, Postoperative pain is expected after surgery and plays an important role in recovery. Continuous cryotherapy (local cooling) has been shown to relieve pain following surgery evidenced by significantly lower pain scores, compared to those without cryotherapy. There are many benefits of a cold compressive device for pain reduction during recovery. (Saito et al., 2003) RWJUH practices a multimodal pain relief approach by planning towards non-opioid analgesic forms of healing. Often after surgery, patients are prescribed opioids to assist with postoperative pain. The United States is currently dealing with an opioid epidemic and ERAS (Enhanced Recovery After Surgery), has given insight into various non-opioid forms of recovery. The ERAS framework’s main focus is to improve the value and quality of surgical care. (Wick et al., 2017) Introducing cryotherapy through hip wraps at Robert Wood Johnson University Hospital, plans to aid with understanding the benefits and cons (if any) of this method.

Method/Approach: In person interviews were conducted on a random sample of patients with hip-related post-operative pain. The interviews took place during the months of February, March and finished in April. Randomized numbers were assigned to each hip patient to maintain confidentiality. The questions assessed for patient usability, comfort, and overall satisfaction with the addition of a cold therapy hip wrap. Results were then uploaded and analyzed through an online survey system.

Outcomes/Results: Of the sample size cohort size (n=7), 100% of patients said the hip wrap would be something they would feel comfortable using at home. 50% of patients rated their overall experience with the hip wrap as “outstanding”, and 50% rated it “good”. The other patients rated the pain significantly lower with the hip wrap versus without. A 10 point likert scale/Wong faces scale was used to assess for pain. 0 being no pain and 10 being the worst pain ever. The maximum level of reported pain was a 6/10 without the hip wrap. Maximum level of reported pain with the hip wrap was 4/10.

Evaluation/Conclusion: Evaluation of the data allowed us to come to the conclusion that the hip wrap will continuously be used for cold therapy. With ease of comfortability and usage, it was decided that patients will receive the hip wrap to take home at time of discharge. The hip wraps will be used during the post-operative healing process as an adjunct to the current mult-modal pain management. Limitations were found within the study, including low length of stay, low volume of surgeries, and patient cognition. Average length of stay was significantly low, which made long term analysis of patient satisfaction difficult. A low volume of surgeries resulted in a smaller sample size. A larger sample size would have identified a more accurate mean, with an increased chance of identifying outliers (if any). 85.71% of the sample size were 65+ years of age, resulting in various levels of patient cognition post-operatively.
Internship Abstract

Title: Access to Health & Hygiene Services for the Homeless

Name: Nahom Deleta

Preceptors: Kelsey Lynch, Co-owner

Agency: Archangel Raphael’s Mission (ARM)

Purpose: To expand access to health and hygiene services for the homeless community in the downtown New Brunswick, New Jersey area.

Significance: In January 2020, weeks before the COVID-19 pandemic was officially declared, a nationwide poll reported that 580,466 people in America have been experiencing homelessness (National Alliance to End Homelessness, 2021). Being homeless makes it significantly harder to access necessary everyday health & hygiene services. Experiencing homelessness is associated with significant barriers to accessing everyday services such as hand washing, laundry, and shower facilities (Leibler et al., 2017). Homeless people that lack access to these services are at an increased risk for poor physical and mental health while access to these services increases the likelihood of transitioning out of homelessness (Leibler et al., 2017). Thus, community based interventions are necessary to ensure the local homeless population have access to health and hygiene services.

Method/Approach: To expand access to food for those experiencing homelessness in the downtown New Brunswick, New Jersey area, a daily dinner service was run every day at the United Methodist Church on George street. Volunteers were recruited from the SEBS PreMedical/ PreDental Society at Rutgers University, New Brunswick to aid in running the dinner service in which about 50 meals a day were handed out. Food was locally sourced from willing restaurants or prepared at the UMC church and handed out every day from 5 p.m. to 7 p.m. Leftover meals were delivered to a local motel that housed struggling individuals who moved in and out of homelessness. To expand access to hygiene services, ARM’s mobile shower unit was cleaned out and prepared for deployment along with ARM’s handwashing station in early May. Additionally, in conjunction with True Cuts, free haircuts were provided to homeless individuals on the 8th of April from 11a.m. to 4 p.m. at the newly opened True Cuts barbershop at the Yard on College Avenue. Free socks were also handed out to homeless individuals who attended the event.

Outcomes/Results: Between January 2022 to May 2022, in conjunction with the United Methodist Church, ARM provided over 5,000 dinners to individuals experiencing homelessness in the downtown New Brunswick area. Additionally, the mobile shower unit along with donations and partnerships with local businesses effectively provided hygiene services to the local homeless population.

Evaluation/Conclusion: Fundraising efforts in conjunction with volunteer recruitment resulted in an average of over 50 meals distributed daily to homeless individuals in the greater downtown area of New Brunswick, NJ. These meals provided nourishment to individuals who would otherwise go without food for dangerous periods of time. Through partnerships with local businesses, ARM was able to provide hygiene services to many homeless individuals, a service that is often overlooked but necessary to the overall wellbeing of the homeless population.
Title: Increasing Social Media Engagement for The Urban Health Collaborative

Name: Laura Denis

Preceptors: Zaire Ali, Ed.M, MPH, Executive Director

Agency: The Urban Health Collaborative

Purpose: To increase engagement on social media platforms and to promote the importance of mental health hygiene.

Significance: Mental health is an individual’s emotional, psychological, and social well-being and can determine how they handle stressful situations, relate to their community, and make health promoting choices (Davidson, 2020). It is estimated that about 1 in 5 people will experience a mental illness in their lifetime (NAMI, 2019). Mental health hygiene refers to all activities and techniques which maintain mental health and assist in preventing the development of mental illness and comorbidities (Tremblay, 2021). Prevention is an important approach to improving mental health as it stops mental health problems from developing, getting worse or recurring. Part of The Urban Health Collaborative’s mission is to improve the overall health and well-being of people and by helping individuals learn new skills and teach them how to use them in their daily lives. The Urban Health Collaborative seeks to increase their social media presence by gaining a larger audience and providing educational resources related to mental health hygiene.

Method/Approach: The social media platforms used were Instagram, Twitter and Facebook. To increase engagement, a social media calendar was created and each week at least three social media posts were uploaded on all three platforms. These social media posts were infographics related to mental health hygiene created by the interns. The intern team used the social media insight pages to determine the influence of the media posted on these platforms. On Instagram, insights showed individuals reached, profile visits and followers. On Facebook, the team was able to gain insights on individuals reached, page likes and page visits. Twitter insights gave statistics for every month regarding profile visits and tweet impressions.

Outcomes/Results: Thus far, most social media platforms have had major increases in social media engagement. From January till March, Instagram reached a total of 32,988 individuals, a 137.8% increase, 3,101 profile visits, a 125% increase and 285 new followers, a 213.2% increase. From January to March, Facebook reached 25,554 individuals, a 201.2% increase however it only had four Page likes, a 75% decrease and only 98 page visits, a 48.7% decrease. From the month of January to March, Twitter engagement increased significantly over time. In January, Twitter had 2126 tweet impressions and 766 profile visits. Those statistics nearly doubled in February where tweet impressions were 4889 and profile visits were 1325. During the month of March tweet impressions totaled to 6622 and 1425 profile visits.

Evaluation/Conclusion: The Urban Health Collaborative overall succeeded in increasing social media engagement through posting mental health hygiene related infographics. These posts not only have increased social media engagement but also play a vital role in preventing the development of mental illnesses. Moving forward The Urban Health Collaborative should focus on new ways to increase engagement on Facebook as this was the social media platform where decreases in engagement were seen.
Title: Triple R Plan: Reducing Readmission Rates

Name: Jennifer Desrosiers

Preceptors: Mandela Grant

Agency: Hackensack Meridian Health - JFK Medical Center

Purpose: By minimizing the readmission rates within the JFK location, the hospital will be able to maintain financial growth to direct funds towards wellness programs and community interventions.

Significance: Hospital readmissions have negatively affected the growth and financial sustainability of many health care systems. High readmission rates are a direct reflection of poor performance, declining patient health outcomes and financial debt that will hinder the success of the institution. By reducing readmission rates, JFK University Medical Center will be able to redirect their finances towards offering wellness programs, community interventions, lower health care costs and improve quality of services.

Method/Approach: The general expectation every patient has is a right to confidentiality, proper service and a positive experience with medical staff. During the change of every shift, patient concerns were emphasized to the medical staff during the report. By doing this, staff was aware of the reason for the visit, the diagnosis and the concerns of the patient. It helped providers show more compassion towards the needs of each patient and answer any questions or doubts one might have. Emphasizing the importance of the completion of patient feedback forms and follow-up calls would also help in factoring improvements of the quality of services.

Outcomes/Results: Showing compassion has directly improved patient satisfaction and lowered readmission rates. In many of the completed feedback forms and documented follow-up calls, patients have expressed their gratitude towards the medical staff ensuring their comfort and proper treatment. Over the past 2 months, there was a drastic decrease in patient volume returning for the same concern because they were addressed during the first visitation. Readmission rates dropped by 16%. Extensive stays; which is considered anything beyond 3 days has also been reduced by 39%. In the months of February and March, patient satisfaction was 59% ranging from average to very satisfied. In April, satisfaction rates were 77%. Noticing the decrease from one month to the next and the increase of patient satisfaction presented an opportunity to tackle other issues such as; access to healthcare in the community, improvement of treatment plans, and insurance and billing.

Evaluation/Conclusion: Readmissions are costly and can cost hospitals millions of dollars. The purpose of the Triple R plan was to reduce readmissions rates and redirect the finances. Overall the plan was a success because of the cooperation of medical staff and compliant patients who shared their experience. Though readmissions are still present, it has been a drastic decrease and quality of service has improved. In the months to come, there will be active approaches in place to incorporate community interventions for the summer and the fall.
Title: Real World Late Phase: Site Operations

Name: Amanda Dominguez

Preceptors: Stephanie David, Program Director & Dawn Powell-Rogers, Associate Director, BU Operations Management

Agency: Syneos Health

Purpose: To highlight and analyze clinical trial phases and understand the pharmaceutical industry, specifically the Real World Late Phase, which tests drugs already in the market.

Significance: The pharmaceutical and biotechnology industry has changed healthcare drastically. The ability to test and produce new medicines for those inflicted by illnesses is incredible. Syneos Health is a NASDAQ American clinical research organization based in North Carolina. Specifically, Syenos Health, is a biopharmaceutical solutions group, which allows expediting and testing medications both in Early Phases and within the market, in Late Phase. This uniqueness in a clinical research organization stands from the Syneos “Biopharmaceutical Acceleration Model,” which is “an end-to-end concept, working across our clinical and commercial capabilities and driven by each and everyone one of our approximately 28,000 employees” (Syneos, 2021). Some examples of the Biopharmaceutical Acceleration Model are therapeutic expertise in all major categories, demonstrated results advancing clinical and commercial success, and a collaborative approach to development and ultimately commercialization of the new medicine (Syneos, 2021). The company has sites all over North America, Latin America, Europe, Asia Pacific, the Middle East, and Africa.

Method/Approach: In the role of a Project Specialist Intern, the goal was to be able to see and understand the scope of the pharmaceutical industry through a Clinical Research Operation. By establishing meeting minutes, preparing oral reports in regards to the study progress, and ensuring the deadlines were being met, it allowed for these studies to be completed and undergo official review. Furthermore, any studies that were officially complete would be properly filed and documented. Through the platform of the Veeva Vault system, which contains the documents and files from clinical trials all over the world, the project specialist team is able to organize and maintain the proper documentation required for clinical trials. This is the most crucial step during a Clinical Trial and allows for multiple to occur at one time.

Outcomes/Results: After attending over 75 meetings in regards to various clinical trials occurring throughout the organization and participating in 200 training modules, each study that was assigned was then meticulously closed out and archived in the Veeva Vault System. The finalization of these studies is required in order to properly follow clinical research guidelines. Ultimately, 50 studies, from clinical trials, all over the world were properly documented for. As well, working cross-functionally with different team members also ensured that all aspects of a clinical trial were being properly documented.

Evaluation/Conclusion: In conclusion, the experience at Syneos Health has been extremely rewarding. The increase in ability to create an efficient work environment while also viewing a different sector of the healthcare industry has been extremely purposeful. The impact that a Clinical Research Organization has on healthcare, is so unique and has the ability to change lives.
Title: Change in Operational Process in Hillebrand

Name: Ala Dorvil

Preceptors: Ed Tadych - HR Manager

Agency: Hillebrand

Purpose: The purpose of this internship is to learn the inner workings of the logistics industry, as well as to gain some operational, financial, and professional experience.

Significance: The logistics industry is one of the fastest growing industries, and one of the few industries that witnessed economic growth during the Covid-19 Pandemic (in fact, there was so much growth during this time, that the company witnessed some backlogging and had to hire numerous temps, in order to tackle it). Hillebrand is the #1 global freight forwarder, making it a household name, which is a great addition to my resume. Working in such a well-known, international company, during such tumultuous times provides great experience that will transfer very well to the healthcare field, as a day working as a professional within the field is never stable either.

The significance of the project we are undertaking is that the new operational process will save the company millions of dollars that would have been lost due to human error and a poor operational process. With a rapid-changing world caused by a pandemic, there also needs to be a rapid change in system processes to suit newfound needs and demands.

Method/Approach: Each department received copies of the new processes and are to strictly adhere to the new processes. The new 8-10 page SOP’s provided step-by-step guidelines for invoicing, creating new order entries, creating new arrival notices, creating new container delivery instructions, how to pay demurrage/detention, etc. Had I created the new SOP’s, I would have included more detail about each department’s function, so individuals and other departments would know where their scope of responsibility begins and ends. This would also help other departments know who to reach out to in case of any discrepancies and complications not addressed on the SOP.

Outcomes/Results: At the end of each month, my team leader/manager, Judy Dominguez performs a Month-End-Close, which is the collection of financial accounting information, review, and reconciliation of each record each month in order to ensure all records are accurate throughout the year. Judy has received reports stating that the new SOP is effective, has dramatically increased GM revenue, and has decreased the amount of overs and unders. Former CEO, Cees Van Gent stated that the company "sustainably grew our business from EUR 65m EBITDA in 2017 to EUR 110m in 2021, an increase of ~70%!". Our net financial debt had also reduced by 55% in the last fiscal year.

Evaluation/Conclusion: The new SOP’s have saved the company millions of dollars in human error and due to poor operational process. It has drastically improved the amount of overs/unders the company has and is generally regarded as being very effective by all departments. I definitely believe that the company should definitely keep this new process. It has helped all departments improve their efficiency, from the billing department, to the container delivery team, to operations, to accounting, and customs.
Internship Abstract

Title: Policy Review & Update- Social Work Services Department

Name: Traci Drakeford

Preceptors: Jamila Hughley, Program Director Social Services

Agency: Rutgers, Eric B. Chandler Health Center

Purpose: To review and update the Social Work Services Department Policies and Procedure manual to ensure that the department is working from the lens of the Cherokee Behavioral Health Integration model; thus improving integrated primary care within the health center.

Significance: In 2020, over 23% of adults with a mental health illness reported a lack of access to treatment. Many may not know where to begin or may feel hesitant to seek mental health services. In fact, "74% of Americans who seek help for depression or symptoms of depression will go to a primary care physician rather than a mental health professional" (Cassano, Fava, 2002). The Eric B. Chandler Health Center pursues an integrated primary care approach, where patients seen for medical issues are also given resources or counseling from the social services department. This project involves updating policies and procedures to reflect the Cherokee Behavioral Health Integration model- ensuring high-quality, patient-centered care.

Method/Approach: The Social Services Department manual consists of policies and procedures for integrated primary care. These policies and procedures will be reviewed and updated to reflect similar language and goal requirements of the Cherokee Behavioral Health Integration Model. Such changes will include a shared delivery of care across a team of providers and behaviorists, access to a behavioral health coordinator regardless of visit type, open line of communication and care coordination, etc. Upon completion, the preceptor will review the updates and will share the new policies and procedures with the different teams at the health center.

Outcomes/Results: The policies that were updated include: Safety Procedures Of Staff Providing Client Services At Community Locations And During A Home Visit, Reimbursement for Behavioral Health Visits, Referrals To Social Workers, Psycho-Social Assessments, Referral To Social Services - Alcohol/Drug Referral, Procedures For The Medication Assistance Program To Patients, Management Of Patient With Intentions To Harm Themselves Or Others, and Social Services Department Operational Manual. After being updated and reviewed, the policies and procedures were incorporated into the current workflow at the Eric B. Chandler Health Center. Rates of patient progression will be collected after the implementation of these policies and procedures for the social services department.

Evaluation/Conclusion: Such policies are meant to support the need for integrated care for the New Brunswick community. For instance, approximately a quarter of New Brunswick residents (26.4%) report that someone in their household has depression, anxiety, or other mental health condition (Weiner, et al., 2011) compared to fewer than ten percent of Middlesex County residents (8.1%) who reported that they saw a provider for an emotional or mental health problem in the past 12 months (Chakravarty, et al., 2012). Updating these procedures serve as an effective tool to (a) stress the need for integrated care, and (b) improve the current workflow to reflect the goals of the Cherokee Behavioral Health Integration model. Limitations may include lack of 1-1 interactions with a patient in need of a BHC/CHW/LCSW due to COVID-19 restrictions (i.e. rate of infection increases, telemedicine may only be offered by certain providers).
Internship Abstract

Title: Patient and Community Outreach Assessment
Name: Jamiah Dunson
Preceptors: Laura West, New England Patient and Community Outreach Coordinator
Agency: Leukemia and Lymphoma Society

Purpose: To examine the educational impact of patient community outreach techniques for children and adults living with blood cancers and lymphomas, through patient communication, resources, networking events, and advertisements.

Significance: Cancer is among the top leading causes of death in the United States. There are nearly 2 million incidences of cancer cases annually in the U.S. and of the existing cases, nearly 600,000 people die yearly. Leukemia encompasses approximately 500,000 of these cancer cases, however, there are other common blood cancers as well, such as multiple myeloma, Hodgkin’s and Non-Hodgkin's Lymphoma, Myelodysplastic Syndrome, and plenty of other blood cancers. NJ has a cancer mortality rate of “486.7”, while the U.S. has a rate of “448.6” (Cancer.gov). Neither of these numbers are anything to celebrate, and in fact, they are very alarming. The Leukemia and Lymphoma Society (LLS) aids in combating the medical expenses as well as emotional toll that blood cancer places on its survivors, as well the families of the survivors. The organization provides financial assistance such as copay, transportation coverage, medical reimbursement, and support resources such as peer and family support, first connection, and grief counseling. The project is centered in the New England region of the US, with a specific focus on the rural regions of these states due to lack of accessible healthcare.

Method/Approach: Responsibilities include setting patients up with necessary resources to aid with their treatment as well as helping to design and orchestrate events that are meant to bring together members of the cancer community, in an effort to beat cancer through education. 300 patients were entered into the Salesforce system to receive educational resources after having received financial aid such as copay, or emergency assistance. Upon calling patients (about 150 calls thus far), there were three general categories to place them, (1) either they needed additional resources, (2) they did not need anything, (3) or they were not able to be reached and in applicable cases, there were left a voicemail and follow-up email.

Outcomes/Results: Of the 300 patients entered, around 150 (50%) were called so far to inquire about further resources. Of the 150 patients, about 20 (13.3%) needed further assistance, nearly 70 (46.6%) needed no further assistance, and the remaining 60 patients (40%) were left voicemails or could not be reached at all. Additionally, there was a Waldenstrom's Syndrome virtual event held in which 600 patients were registered and due to technical difficulties, about 200 (33.3%) patients attended. Of the 200 patients, data was entered into the system for 48 patients (24%) to receive educational resources from our IRC and 100 patients (50%) had data entered for them to receive a phone call from staff in our FCP.

Evaluation/Conclusion: Most patients did not need extra educational resources. However, phone calls and virtual events prove to be effective methods of spreading educational resources about blood cancer to the general LLS community. Spreadsheet data is also an effective method for being able to easily transfer information into the LLS patient database. All patients have not yet been reached through our educational resources and events, but LLS staff are actively working to ensure that it happens.
Internship Abstract

Title: Understanding the 5 Food Groups Through Nutrition and Health Lesson Plans

Name: Olivia Echeverria

Preceptors: Gina Stravic

Agency: Raritan Valley YMCA

Purpose: To measure the success of a 10-week nutrition and health education program on understanding the 5 food groups that are presented to the Raritan Valley YMCA pre-k class.

Significance: Eating healthy is important in childhood and adolescence years for a number of reasons. It is recommended that people who are 2 years or older follow a healthy eating pattern. This includes eating a variety of fruits and vegetables, whole grains, fat-free and low-fat dairy products, a variety of protein foods, and oil. A way to follow this pattern is by using the MyPlate poster provided by the U.S. Department of Agriculture. My goal is to create nutrition and health lesson plans that will address the importance of eating a variety of fruits, vegetables, grains, protein foods, and dairy and fortified soy alternatives. These nutrition lesson plans will also aim to improve the knowledge about healthy eating to the youth.

Method/Approach: The nutrition and health education programs were formatted into lesson plans for the Raritan Valley YMCA pre-k class. Each lesson plan consisted of learning objectives, an introduction to the topic of discussion, a read aloud, and an activity. The size of the pre-k class was 16 children, ranging from ages 4-6. Pre-test and post-tests were created for the pre-k class to test their knowledge before and after the lesson plans. The pre-test was interactive for the pre-k class and the concept of the pre-test was to take the children grocery shopping. Individually, the child was asked to shop for five food items. In this pre-test, money was also incorporated. The children were also able to practice addition. Each child was given five dollars to buy their five items. Each child was told to buy one food item from each of the five food groups: vegetable, fruit, protein, dairy, and grain. The children were instructed to put each of the food items in their grocery basket and go to the cash register to pay with the money they were given. The post-test was exactly the same concept.

Outcomes/Results: After the 10-week nutrition and health education lesson plan, the post-test showed an increase in knowledge among the pre-k class. The post-test was the same format as the pre-test and all of the children except for one were re-tested. Due to one child dropping from the pre-k class, the size of the class went down to 15 children. Although one child withdrew from the class, the results of the post-test showed about 53% of the children understood the 5 food groups. The results of the post-test also indicated that many of the children were able to understand the dairy, protein, and grain food groups that they were previously not familiar with.

Evaluation/Conclusion: The ultimate goal of these nutrition and health lesson plans were to increase the knowledge of food groups for the pre-k class ages 4-6. To review the fruits and vegetable food groups but also introduce and focus more on the other three food groups that the children were not familiar with. Incorporating these nutrition and health lesson plans will help implement healthy eating habits and allow young children to explore the variety of foods in each food group.
Title: Business Office Assistant

Name: Nour El-Zant

Preceptors: Direct Supervisor: Lisa Salazar, Business Office Manager
         Project Supervisor: Eliyahu Samowitz, Nursing Home Administrator

Agency: Cranford Rehab & Nursing Center

Purpose: To assist the Business Office Manager with the facility’s financial responsibilities, along with auditing the environment to ensure standards are being met to ensure patient satisfaction.

Significance: The significance of this role includes helping a facility operate on a daily basis, providing programs for the public, training new employees, and helping every patient. This helps to ensure compliance with all financial regulatory and other requirements.

Method/Approach: Responsibilities for this role range from protecting the organization by ensuring that they remain profitable and can continue operating, while also advocating for patients by overseeing that healthcare services are being delivered efficiently and with quality care. Methods that are used to carry out these responsibilities include: Quality assurance, Operations Management, Strategic planning & finance.

Outcomes/Results: By the end of this project the organizational structure will mature to include extra features that benefit the facility and the patients. This includes improvements with the patient admissions, payment intake, and the overall administration structure. By welcoming each new patient with an admission and consent packet, the patient admission procedure now became more efficient. Another example of an improvement made was collection of payments. Part of this internship included delivering bills to private paying residents & submitting bills to Medicaid on behalf of residents who qualify. Most importantly, consumer satisfaction has been improved by simply completing rounds in the morning, noon, and evening to receive feedback from patients and check on overall comfort level. By adapting these changes throughout the project’s duration the organization will benefit from increased revenue, organized patient care, and improved morale throughout the staff.

Evaluation/Conclusion: Evaluation of the project is key to understanding the success of the outcomes from the project. To create this evaluation, customer feedback must be provided through surveys and focus groups. This will allow the organization to recognize whether or not the project assisted in the improvement of patient satisfaction. In addition to recognizing patient care improvement, evaluations must be made on the increased revenue from before the project to after the project’s completion. Seeing an overall improvement in revenue will allow the evaluation to understand how the project’s impact has helped the organization’s financial health.
Title: Practice Enhancement Training Policy Review & Improvement

Name: Betsally Falcons

Preceptors: Shawn Dungo, Associate Director of Practice Enhancement, Emergency and Hospitalist Services

Agency: RWJBarnabas Health Jersey City Medical Center

Purpose: To evaluate scribe training guidelines and draft new policies to improve the patient flow process in the Emergency Department at JCMC.

Significance: Studies, such as Impact of Medical Scribes on Physician and Patient Satisfaction in Primary Care (Pozdnyakova et. al. 2018) and Impact of Medical Scribes in Primary Care on Productivity, Face-to-Face Time, and Patient Comfort (Zallman et. al. 2018), have shown that the aid of medical scribes reduces physician burnout and increases their satisfaction in the workplace without negatively affecting the patient’s satisfaction. By improving the process to train said scribes, the JCMC Emergency Department is moving towards an overall increase in efficiency and patient satisfaction. The need for this improvement comes from the work output of the scribes at JCMC lacking over the past couple of months. Clinicians and the lead scribe have seen a dip in performance and have offered follow-up training and mentoring meetings, but more needs to be done. Scribes should be confident in the charts they are responsible for and be meticulous to ensure the chart is accurate, to avoid future problems.

Method/Approach: The medical scribes listen to dictations from the clinician and will begin the chart for a patient, which allows the clinician to focus on their patients. While the scribe is charting, the clinician has the time to order medicine or tests, make calls to other doctors to discuss a case, or be in the room with the patient learning more. By reviewing the scribe trainers’ guidelines, tweaking them, and developing new policies, the medical scribes can be more prepared and provide charts that the clinicians feel comfortable signing with minimal editing. One policy included the addition of quizzes after each section of a practice chart. These were tested on the class of scribe trainees that were in session during the creation of the quizzes. The feedback from the trainees taking these quizzes was also considered for further edits to use for future classes.

Outcomes/Results: Policies were developed that directly impacted the virtual training portion of the onboarding process to be a medical scribe at JCMC. Along with the trainers’ guidelines, these policies will ensure proper coverage of material for every scribe. Procedures include an absentee policy and how that would affect the rest of that scribe’s training, the completion of all practice chart assignments, and the addition of quizzes for the trainees to take in order to prove their competency of the material learned. Furthermore, there is a final quiz that a scribe needs to complete, which will determine if they are sufficiently trained to start the in-person training, or require more virtual training.

Evaluation/Conclusion: The quizzes provided to the class of scribe trainees during the semester show that the examinations helped reinforce the main points of the virtual training session. These quizzes allow the scribe trainees to strengthen the foundation of knowledge that will be built upon during the next training session. The quizzes will be reviewed prior to each new class of scribe trainees to ensure cohesiveness to the material and the medical scribe position. The policies that were developed will guarantee that no scribe trainee will be left behind due to a lack of presence at training sessions or a lack of foundational knowledge, and they will enter the in-person training shifts with the skills to make them successful at the job.
Internship Abstract

**Title:** Patient Experience Training Presentations

**Name:** Elizabeth Fayer

**Preceptors:** Sandy Festa, Executive Director, Therese Wilkerson, Director of Patient Experience

**Agency:** AtlantiCare Federally Qualified Health Center

**Purpose:** To improve patient experience across the Federally Qualified Health Center through researching patient experience in order to create a patient experience presentation to present to staff along with assisting in planning a video about patient experience at the FQHC.

**Significance:** Patient Experience in clinical settings is one of the most important aspects of health care that often gets overlooked. According to the Beryl Institute, patient experience is the sum of all interactions shaped by an organization's culture which influences patient perceptions across the continuum of care. According to the Federally Qualified Health Center (FQHC), the patient experience is the sum of all interactions throughout every touchpoint across the continuum of care. It includes several aspects of healthcare delivery that patients value highly when they see and receive care such as obtaining timely appointments, a clean environment, easy access to information, good communication with health care providers and being valued as a patient. Patient experience is an essential component of healthcare quality and it reflects on the ability to attract and retain patients.

**Method/Approach:** The responsibilities of this project included researching patient experience and engaging in weekly meetings with the Director of Patient Experience of the FQHC in order to create a presentation to show new and old employees of the FQHC. The research was done through listening to podcasts about patient experience, reading articles and journals, as well as reading books about patient experience. The presentation consisted of 36 slides engaging employees through visuals and written information along with videos. The presentation was presented to new and old employees at the FQHC and feedback was taken from the participants. The goal of the training sessions was to have at least 8 new or old employees from 4 different departments at every Patient Experience Presentation training session. This project also consisted of planning a video presentation of employees at the FQHC showing how they are a part of the patient experience.

**Outcomes/Results:** The first Patient Experience presentation was shown to 2 new and old employees from the same department. The second Patient Experience presentation was shown to 8 new and old employees at the FQHC from 4 different departments. The presentation will continue to be shown to employees in training sessions organized by the Director of Patient Experience. The presentation will also be modified depending on what audience is participating in the presentation. The presentation that was created will help teach employees about patient experience. This will likely improve employees' interaction with patients which will in turn improve patient satisfaction and the ability of the FQHC to attract and retain patients.

**Evaluation/Conclusion:** This project can be evaluated through feedback from employees who have participated in these presentations and reported back to the Director of Patient Experience, Therese Wilkerson, and also myself until the end of the internship. This feedback can help to revise the PowerPoint while also giving an indication of whether the presentation was effective. There is always more information to learn about patient experience and many different methods to improve patient experience. It is important to note that the patient experience is always at a continuum and there is always room for improvement.
Internship Abstract

Title: Reduction in Length of Stay and Readmissions in the Enhanced Perioperative Unit (EPA) for Bariatric and Gynecological surgeries

Name: Abigail Faynshteyn

Preceptors: Luciana Cinicolo, Regional Director, Jenifer Stein, Patient Navigator, Bariatric and Colorectal Surgery, Caitlin Tauro, Women’s Health Patient Navigator

Agency: Cooperman Barnabas Medical Center

Purpose: Compare length of stay and outcome measures such as readmission between the EPA and the medical surgery unit for Bariatric and Gynecologic populations.

Significance: The Cooperman Barnabas surgical department includes the EPA which has 10 beds. The EPA promotes an efficient use of hospital beds and services without compromising patient outcomes. A shorter period of hospitalization reduces the risk of hospital-acquired infections, increases the patient satisfaction and yields more efficient use of hospital beds. Bariatric surgeries such as the Sleeve Gastrectomy and Gynecologic surgeries such as hysterectomies are used in this study because they have similar post-surgery care plans. The goal is to enlarge the EPA unit to serve more patients.

Method/Approach: Post-surgery care plans were used to monitor patients released into the EPA. Standard care included pain management, physical therapy, post-operative nausea, and discharge planning. To reduce readmission rates, patients were evaluated using a surgical risk assessment developed by the American College of Surgeons to ensure there were no post-surgery complications.

Outcomes/Results: Inpatient data was collected for Gynecological Hysterectomies and Bariatric Sleeves from 1/1/2021 through 12/31/2021. There was a significant decrease in length of stay compared to the previous year for both hysterectomies and sleeves. A total of 309 cases were evaluated for Bariatric Sleeves. The length of stay in the EPA was 1.10 days compared to the 1.50 days for medical/surgery unit length of stay. This totaled a 10-hour reduction in length of stay for the EPA. One hundred and fifty-five cases were evaluated for Hysterectomies. The length of stay in the EPA was 1.10 days compared to 1.82 in 2020. This totaled a 17-hour reduction in length of stay for the EPA for the previous year.

Evaluation/Conclusion: Patient recovery in the EPA reduces length of stay for both Bariatric Sleeves and Gynecological Hysterectomies. A shorter length of stay increases patient satisfaction and efficient use of hospital beds. There is also a decreased risk for additional infection with a shorter length of stay. The findings were enough for the hospital to be satisfied and apply to get permission to expand the unit.
Internship Abstract

Title: I-9 Documentations Audit

Name: Maliha Fayyaz

Preceptors: Christina Gorman and Nikkia Bruce

Agency: Metropolitan Dermatology

Purpose: To assist in conducting an I-9 audit of 190 employees to verify their identity and employment authorization to ensure that Metropolitan Dermatology is in compliance with employment laws.

Significance: The Immigration Reform and Control Act (ICRA) requires all employers in the United States to have their employees complete an I-9 form given it is integral for employers to verify the identity and employment eligibility of each person they hire (U.S. Citizenship and Immigration Services, 2022). Conducting a bi-annual internal I-9 audit can ensure that employers remain in compliance with employment laws and help prepare employers for I-9 audits that are carried out by the U.S Department of Homeland Security’s Immigration Customers and Enforcement (ICE).

Method/Approach: Thoroughly review copies of active and terminated employees I-9 documents and organize documents into appropriate files. To then create a spreadsheet using data validation, conditional formatting, and filtering techniques on Microsoft Excel to consolidate a list of 190 employees I-9 records. The spreadsheet consisted of important aspects of I-9 completion and record-keeping such as 1) I-9 on file 2) Employee identification documents on file 3) Section 1 of the I-9 correctly completed and signed by the employee, and 4) Section 2 of the I-9 correctly completed and signed by the employer/authorized representative. The process of this review is to ensure complete accuracy and reliability of employee documents and to confirm work eligibility. Of the I-9s that were not completed correctly or were missing identification documents, the Human Resources Manager reached out to employees to address the need for rectification and required employees to provide the appropriate documentation and signage and, if needed, to complete a new I-9 form.

Outcomes/Results: From reviewing the employees I-9 records, it was found that four I-9 documents needed to be completed from scratch due to unacceptable written/signage mistakes, and six employees needed to provide up-to-date identification information for I-9 forms due to expired and missing IDs. The Human Resources Manager reached out to these employees to collect the correct information and stressed to the employees that the documentation must be provided as soon as possible. All employees were cooperative in this process by providing the up-to-date identifications and completing documentation within 3 business days of being asked. Now the I-9s of all 190 employees are up-to-date, completed correctly, and filed separately by employment law standards.

Evaluation/Conclusion: Conducting a bi-annual I-9 audit is integral for organizations as these audits provide employers with the chance to reveal errors that are present in the I-9 form and rectify those changes accordingly. The I-9 audit can ensure that all Metropolitan Dermatology employees are authorized to work in the United States and can ensure managers are ethical in their recruitment processes by The Immigration Reform and Control Act (ICRA) standards. Completion of this audit will prepare Metropolitan Dermatology for I-9 audits that are carried out by the U.S Department of Homeland Security’s Immigration Customers and Enforcement.
Internship Abstract

Title: Restorative Medicine Gut Health Guidance

Name: Gabrielle Fernan

Preceptors: Project Supervisor: Iza Boesler, M.D., Medical Director
Direct Supervisor: Alan Macioszeck, Office Manager

Agency: Fresh Fit Consulting

Purpose: To educate patients on how to improve their diet to support better gut health.

Significance: Fresh Fit Consulting works with patients who exhibit problems with gut health under restorative medicine. Dr. Boesler performs consultations and tries to find the root of the problem with gut health through a stool test and/or a questionnaire called the Medical Symptom/Toxicity Questionnaire (MSQ). Symptoms are rated on a scale of 0-5 then divided into different types of symptoms, including digestive tract, joints/muscles, emotions, and others. Patients then rate specific symptoms such as increase in anxiety, acne, or weight. For each visit, patients fill out the MSQ to measure changes in score. If scores decrease over the period of their visits, patients are benefitting from Dr. Boesler’s treatments. If scores increase, they may need another form of treatment. Supplements and diet recommendations are given to each patient. This project concentrated on creating simple diet plans to encourage patients to encourage program adherence.

Method/Approach: Between February 1, 2022 and March 15, 2022, 10 patients visiting the doctor were given the Medical Symptom/Toxicity Questionnaire (MSQ). A higher score indicates a worse gut health while a lower indicates better gut health. Each patient was tracked over the course of 3 MSQs or 3 visits to the practice to determine what the issues were related to their gut health. Between visits, patients were given diets and occasionally supplements and stool tests for major issues. These scores tallied on the paper questionnaire and scanned into the EHR system.

Outcomes/Results: Of the sample size (n=10), 6 patients reported a decrease in MSQ scores which correlates to an increase in gut health. Four patients indicated an increase in MSQ scores. Of the 60% of patients that scored lower in ongoing visits, 4 out of the 6 (66%) indicated a decrease in their MSQ score specifically in joints/muscles and digestive tract. Of the 4 patients who noted an increase in score, 2 revealed an increase in scores regarding digestive tract. All of the MSQs were taken in conjunction with the new diets that were assigned to each patient. When patients still had higher scores after subsequent visits, compliance to diet was examined and supplements were added.

Evaluation/Conclusion: At the end of the study, 60% of patients saw a decrease in their symptoms and a decrease in MSQ scores. Less than half of the patients saw an increase in their symptoms. The main cause of a decrease in scores is due to the curated diets. If patients are compliant to the diets, then they most likely will see a decrease in their symptoms and an increase in their gut health. Many of the results though are variable due to specific diets of patients and also other co-existing health issues, medications or other supplements they take.
Purpose: To analyze the upgrades desired by the endoscopy department in order to create a business proposal justifying the costs, which will be presented to hospital senior leadership.

Significance: As artificial intelligence advances, scientists and medical professionals are given the ability to improve their techniques and evolve their practices (American Institute of Medical Sciences & Education, 2021). Artificial technological advancements have shown 96% accuracy in localization and identification during endoscopy screening practices (Urban et al., 2018). The equipment had last been upgraded in the endoscopy department of Robert Wood Johnson University Hospital in 2009. The equipment proposed for the endoscopy department included upgrading to Pentax equipment, an Olympus EUS system, surgical boom upgrades, and upgrading the Erbe system.

Method/Approach: An evaluation of the endoscopy staff, equipment, rooms, and revenue projections was performed. An interview of physicians and staff members was conducted utilizing a series of nine questions that assessed what equipment upgrades were included in the rooms, issues with the current equipment, how safety, efficiency, sustainability and revenue would improve, and if any foreseen problems/risks were predicted to arise or continue after the upgrade. The staff was then accompanied inside of the procedural rooms to evaluate the current equipment being used. The new technologies were then researched, along with utilizing the information the endoscopy staff had provided through interviews, to gain a better understanding of the new equipment. Evaluating the revenue projections allowed the analysis of the total net patient service revenue (NPSR) over a four-year time period to see if the revenue justified the capital expense. The return on investment was then assessed.

Outcomes/Results: The equipment upgrades included in the Pentax room involved better scope image quality. This was through maneuverable scopes with the ability to access more areas in the body, advancing therapeutics and diagnostics. Upgrading to the Erbe system reduced bleeding in dissections and cauterizations, along with limiting complications and improving patient recovery. The upgraded Olympus EUS system would enhance image clarity, leading to a more accurate diagnosis and procedural times cut in half. The surgical booms were shut down approximately once a month, putting revenue and precious time at risk. Dumbbells were being used to keep the booms in place, along with wires coming out of them deemed as unsafe practices. The total NPSR is $187,014,634 with total new and capital expenses $121,686,376. This projects a positive difference of $65,328,258.

Evaluation/Conclusion: In two years revenue will make up for capital expenses. The NPSR is projected to be $49,738,622 in 2025, which means that in 2025 revenue will more than double, almost triple, the capital expense (x 2.9). It was delineated in the outcomes/results that the revenue justified the capital expense with a return on investment (ROI) of 53.7%. It is concluded that the upgrades proposed by the endoscopy department were warranted and sensible. Limitations projected by the staff in the foreseeable future is the continuation of using third parties to maintain scopes and equipment instead of the manufacturer.
Title: Robert Wood Johnson Barnabas Health - Supply Chain

Name: Ryan Finnegan

Preceptors: David Rieth, Director of Supply Chain

Agency: Robert Wood Johnson University Hospital, Supply Chain

Purpose: To assess, provide, and distribute medical supplies for various departments across the entire organization of Robert Wood Johnson University Hospital.

Significance: Large hospitals across the country are in constant demand for medical supplies and utilities to assure their patients receive the highest quality of care compared to the next organization. In doing so, health care systems like Robert Wood Johnson University Hospital must have and maintain a well-rounded supply chain network that has all areas of the facility covered and under distribution control daily.

Method/Approach: In order to allow for successful distribution of medical supplies, goods, and materials throughout the massive university hospital, the supply-chain network must be under constant supervision. At several times of the day, health care logistical companies drop off needed medical equipment and supplies that are then later used for medical providers and their patients. After these large shipments are received and sorted, material handlers then take the pre-packaged necessities to their assigned departments. While assisting each medical department with goods and supplies, lists are created with other items that were not replenished during the trip. After all is said and done, these supply rooms are then electronically scanned while the information is sent to the third-party logistics center to repeat the process again.

Outcomes/Results: The overall outcomes of this opportunity with Robert Wood Johnson University Hospital revolve around the concept of learning and operating within the supply chain of a large-scale operation. The complex nature of the health care world is carried upon the shoulders of a successful supply chain team as well as the management that oversees it from the ground up.

Evaluation/Conclusion: Being granted the valuable opportunity to help the supply chain of Robert Wood Johnson University Hospital bettered my understanding of the health care system. Each and every day that I am there, I am truly taken away how such a complicated field can be simplified by having a strict schedule as well as extremely dedicated and hardworking employees. By gaining knowledge about different departments and how their floors operate, I can say that the methodology behind the entire supply chain system is a perfect example of how a health care organization should be run.
**Title:** Methods for Improvement of Musculoskeletal Conditions in Ante/Postpartum Women

**Name:** Gabriella Florio

**Preceptor:** Dr. Donna Cantalupo

**Agency:** Chiropractic Center of East Hanover

**Purpose:** To review care protocols and line of treatment for female patients of the practice who are expecting or postpartum. Extra care must be taken in treating their musculoskeletal ailments during adjustments, so as to keep both mother and baby safe.

**Significance:** The scientific literature on the gestational period points to numerous, drastic physiological changes for women. Due to maternal weight gain, biomechanical changes in the spinal column, asymmetry of sacroiliac joint laxity and hormonal changes (Lisi, 2006), a woman may experience pain not only in the lower back, but also in joints of the extremities. This pain and discomfort may cause great physical and emotional distress while a woman's body continues to adjust to both biological and environmental changes of motherhood. The Chiropractic Center of East Hanover provides comprehensive chiropractic care and screening for expectant and postpartum mothers who are experiencing musculoskeletal-related pain and discomfort to help ameliorate these concerns.

**Method/Approach:** When patients arrive for treatment seeking pain management, they are screened for common musculoskeletal issues of the pregnant and postpartum body. We often evaluate and treat for lower and upper back pain, cramping, pelvic girdle pain, carpal tunnel, and discomfort resulting from pedal edema. Safe treatments for expectant and postpartum mothers provided within the practice include massage therapy, myofascial release, laser and ultrasound therapy (on extremities only), gentle manual adjustments, and Pro-Adjuster adjustments (which introduces light force to the vertebra). As mothers themselves, the doctors of this practice take pride in the care of their pregnant and postpartum patients, knowing firsthand how the body is impacted through gestation.

**Outcomes/Results:** Over the course of a patient’s care plan, our doctors and chiropractic assistants monitor patient charts closely to look for a decrease in pain and discomfort over the duration of treatment. With each visit, pain from 1-10 on an objective pain scale is noted, as well as the quality and location of pain. If improvement is not seen, treatment protocols will change accordingly. Changes in protocol are individual to the patient’s needs and depend on the severity of their condition and the goals for their improvement. When circumstances suggest a more complicated issue, our doctors refer to their network of countless medical specialists to ensure that the woman is seen and cared for in a timely fashion.

**Evaluation/Conclusion:** In providing proper treatment to mitigate pain and chance for further injury, our doctors ensure that mothers are one step closer to optimal health and wellbeing through their transition into motherhood and beyond. It is with the continuity of care, extensive knowledge of our doctors, and their first-hand empathy for the pain and discomfort of motherhood, that a lasting positive impact has been made on the mothers in our community. Our practice has received over 140 5-star reviews and patient testimonies noting improved quality of life and lasting improvement of pain. We take pride in these testimonies and intend to continue to deliver the highest quality of care for mothers and for all.
Internship Abstract

Title: Decreasing Barriers of Access for Atlantic City High Schoolers

Name: Gina Fuentes

Preceptors: Direct Supervisor: Sandra Festa, Executive Director FQHC

Agency: AtlantiCare

Purpose: To decrease health issues amongst children in Atlantic City through developing access to proper resources by expanding health center services in a FQHC.

Significance: According to the Centers for Disease Control and Prevention, one in every five children are considered to be affected by obesity (CDC, 2022). It is estimated that 1 in 3 children born after 2000 will be diagnosed with diabetes in 2050. In a New Jersey state assessment, Atlantic County’s obese rate rose from 23.8% in 2011 to 26.2% in 2018 (NJSHAD, 2021). AtlantiCare is working to improve the health of individuals in the community through early intervention. Currently, AtlantiCare has placed a health services site within the Atlantic City High School, giving the organization a more hands-on approach. Through expanding school health center services, health outcomes in the future of the county will improve. Children will be given the necessary guidance and exercise regime to practice proper healthy habits.

Method/Approach: It was necessary to first perform a SWOT analysis of the population. Most of the community is either Hispanic/Latinx or African American. From the findings it became apparent that Atlantic County has higher teen pregnancy rates and lower life expectancy than the state average. It was deemed necessary to show students the medical services the school based health center (SBHC) provides as well as educational resources. One of the biggest obstacles for the area is lack of insurance. The best way to indicate services are provided to all students, regardless of insurance status, is through social media outlets and visual exposure to students. Flyers and posts were created to be shared through social media accounts of the high school and in the nurse's office itself. It was necessary to grab the attention of students since they would be the ones relaying information to their parents. In these media posts and posters it was necessary to share what the SBHC offers and how it is here to create a network of care. This would help to increase the amount of students the SBHC serves.

Outcomes/Results: The SBHC has seen a steady increase of students acquiring their services. As of now the center is serving 316 students of the student population since its opening in September. This is about 17.48% of the school. The baseline from this year will be attributed to determine next year's numbers. Not enough outreach has been done to determine whether the posts and posters have made a significant change in the amount of students coming to the center. However, the center is determined to perform more outreach work to educate more students.

Evaluation/Conclusion: More time is needed in assessing the overall change the SBHC has made in the student population health. The program was just developed less than a year ago, and implementation was top priority. A review will be conducted before the end of the school year, and another on September 1, 2022 since it will mark one year since opening. The center has received positive feedback from the students, and there will be better measuring instruments put in place as the center grows. Outreach and marketing becomes quite difficult when things have to be pre-approved by other branches within the organization. As of now, 17.48% of students are receiving care that they may have foregone if not for the SBHC.
Title: Opportunities for Lactiga’s Biotherapeutics

Name: Mariah Gagliardi-Wilson

Preceptors: Viraj Mane, PhD, Chief Scientific Officer/ Co-Founder

Agency: Lactiga

**Purpose:** Market Opportunity Assessment: To identify and explain diseases and infections that would benefit from Lactiga’s biotherapeutics

**Significance:** Mucosal infections are extremely common. They range from mild and simply treatable to life threatening and persistent, especially in immunocompromised people. Mucosal infections can be very uncomfortable for the patient and disrupt their quality of life. Lactiga’s innovative biotherapy uses antibodies from human breast milk to cater to unmet needs of immunocompromised people dealing with mucosal infections. This internship project aids in Lactiga’s mission by describing mucosal infections and diseases that Lactiga’s biotherapy can assist with. The project also explains Lactiga’s market opportunity in treating these conditions.

**Method/Approach:** The approach to this project was completed in phases. The first phase was the disease discovery phase. Different diseases were reviewed for compatibility with Lactiga’s biotherapeutics. The vetting phase was next, where the site preceptor and researcher reviewed the diseases and decided which were suitable from the perspective of product development and market opportunity. In the final phase, data collected on the diseases were put together in the paper and formatted for final review. Other sections include regulatory frameworks and market incentives for product development, and a bibliography.

**Outcomes/Results:** There were 8 different diseases found that would work with Lactiga’s biotherapy. The final paper contributes to Lactiga’s larger market opportunity because the organization now has a concrete resource with all of their featured diseases in one space. When an investor, healthcare stakeholder, medical specialist, or other medical provider asks for evidence of Lactiga’s clinical indications, Lactiga will have a comprehensive white paper that clearly lays out pathology, epidemiology, current treatments and limitations, as well as cost benefit analysis. The outcome of this project is a market intelligence asset for Lactiga to clarify to stakeholders how valuable their biotherapeutics are.

**Evaluation/Conclusion:** The report justifies a multi-billion dollar opportunity for Lactiga in domestic sales upon clinical product approval. The report contains a completed bibliography in a standard format to allow preceptor and future readers (e.g. investors and health stakeholders) to review and confirm the assertions made in the report. Lastly, the report is provided to at least 1-2 prospective investors interested in performing due diligence in Lactiga’s Series A financing round, currently scheduled for Fall 2022.
Title: Texas MS 150 Volunteer Engagement

Name: Karina Garcia

Preceptors: Andrew Davis, Senior Engagement Specialist

Agency: National Multiple Sclerosis Society

Purpose: To conduct outreach of volunteers that will assist in running the Texas MS 150 bike ride event which serves to accelerate research and raise funds for individuals living with Multiple Sclerosis.

Significance: Nearly one million people are living with Multiple Sclerosis in the United States. The National Multiple Sclerosis (MS) Society has determined that more people are being diagnosed with MS today than in the past. The nonprofit organization recognizes that likely contributors to increased diagnosis are linked to greater awareness of the disease, better access to medical care, and improved diagnostic capabilities. Bike MS was created by the National MS Society to raise awareness and accelerate research for those living with MS and has since raised more money than any other cycling event for any other cause. The organization reports that, to date, Bike MS cyclists, volunteers, and donors have raised more than $1.4 billion to stop MS in its tracks. Texas MS 150 is one of 68 upcoming bike MS events hosted by the organization that requires the help of approximately 3,500 volunteers to help run the event. Volunteer outreach interventions will be utilized in the weeks leading up to the event to aid the recruitment of volunteers from surrounding communities.

Method/Approach: To track the progress and final outcome of volunteers recruited for the Texas MS 150, a spreadsheet was used to collect and analyze data directly from responses received through the volunteer sign-up portal known as Galaxy Digital. The spreadsheet tracker was additionally broken down by location or volunteer area for the event and formulas were incorporated to determine percentage rates of volunteer counts achieved and remaining.

Outcomes/Results: The target goal of 1200 minimum volunteer sign-ups was not met by the two-week mark prior to the event start date. Instead, a total of 704 volunteer sign-ups, or 59% were recorded, leaving 41% of volunteer sign-ups needed to achieve the minimum target goal. Areas tracked for volunteer sign-ups consisted of the following progress: Packet Pick Up Opportunities 94% achieved, Katy Start Line 83% achieved, Waller Start Line 100% achieved, Energy Corridor Start Line 56% achieved, Austin Start Line 100% achieved, Houston Rest Stops Day 1 67% achieved, Austin Rest Stop Day 1 61% achieved, La Grange 53% achieved, Rest Stops Day 2 88% achieved and Kyle Field Finish Line 59% achieved. Overall, Energy Corridor Start Line and La Grange were the two areas with the lowest percent of volunteers signed up while Katy and Austin Start Lines were the only two areas with a 100% minimum volunteers reached.

Evaluation/Conclusion: Despite varied outreach efforts to recruit volunteers for the Texas MS 150, the target goal of 1200 minimum volunteers was not reached two weeks prior to the event. It was concluded that factors such as lack of awareness of the event or unwillingness to participate due to the COVID-19 pandemic played a role in the low turnout of volunteers signed up. Ongoing outreach efforts to continue recruiting volunteers for the Texas MS 150 will take place in the final two weeks leading up to the event start date while any unfilled positions will be filled through a contract staffing agency.
Internship Abstract

Title: GoodRx Health Research Team Support and Analysis

Name: Aashna Gheewalla

Preceptors: Maura Fertich, Editorial Operations Associate

Agency: GoodRx Health

Purpose: To use data to create informative health articles with high SEO and media potential/traffic that is easily understood by the general public.

Significance: The research conducted at GoodRx Health is picked up by media outlets such as CNN, CNBC, The Washington Post, etc. The research is reported in common language on topics that are relevant, current, and important to the viewers and readers. This helps bring research from an Academia perspective to simple notions that are easily understood by the general public; essentially helping to educate the public on relevant healthcare issues in a way that is accessible and increase rates of complex health literacy among Americans.

Method/Approach: Based on GoodRx Research's original data collection, qualitative and quantitative analysis was conducted to interpret the data and results. Using the analysis and data, an outline of the article will be created to first determine structure and format of the article. Then, the written portion of the article will be worked on, with a consumer-focus in mind. Visualizations of the data, such as charts and graphs, will also be created and used in the article to help consumers understand the data and information presented. After fully editing and checking the article, it will then be published on the GoodRx Health platform to be accessed by all consumers and media outlets.

Outcomes/Results: Using one survey that was sent out, we were able to create a research story. The first article analyzed how much of an impact medical misinformation has on Americans. The team worked together to complete analysis, story framing, and key takeaways for the public to read. Two statistics were focused on in the story, which framed the story in a way that is easily understood and interpreted by the general public. Another story was created using FDA-approved SAD medication [bupropion] fill rates across America in the winter season, and was created by analyzing weather patterns across 5 years in comparison to medication fill rates. Disparities between weather patterns and high/low fill rates were qualitatively and quantitatively analyzed. The story was then created in a way that is easily understood and interpreted by the general public.

Evaluation/Conclusion: For the first story, the key takeaways conveyed to the general public were that more than 2,300 counties in the U.S. are at risk for seasonal affective disorder during the winter months, fill trends for SAD medication are relatively low in the Pacific Northwest and relatively high in parts of the South and Midwest, possibly due to public health campaigns, and switching from daylight saving time to standard daylight time may increase the risk for SAD, but there’s not enough evidence to say whether the Sunshine Protection Act would reduce winter depression. This story was shared on social media and has more than 3,500 impressions. For the second story the key takeaways conveyed to the general public were those who strongly believe in the COVID-19 vaccine are getting vaccinated, but so are those who do not strongly believe in it. Conversely, those who strongly believe in annual physician visits are not all able to see a physician due to various barriers.
Internship Abstract

Title: Evaluation of Legislation

Name: Ashley Gomez-Jimenez

Preceptors: Annette Chaparro, Assemblywoman for Legislative District 33

Agency: New Jersey Legislature - Legislative District 33

Purpose: To evaluate and study potential legislation regarding the immigrant community in New Jersey and develop ways in which to present and gather support for legislation being introduced.

Significance: In New Jersey, nearly one in four residents is an immigrant, one in six residents is a U.S. born citizen with at least one immigrant parent. The American Immigrant Council found in a study conducted in 2017, immigrants made up 22% of the state’s population meaning there were more than 1,977,325 immigrants in New Jersey. This evidence indicates the importance of passing comprehensive legislation that protects and benefits the immigrant population in the state. Evaluating and studying potential legislation will ensure that the laws being implemented are helping the immigrant community in New Jersey and not causing further harm or distrust.

Method/Approach: Researching organizations that are serving and committed to helping the immigrant community in New Jersey is the first step followed by a meeting in order to gain insight in the work that is currently being done. It is important to establish which pieces of legislation are most important and to begin to track them. After meeting with different organizations there waas an emphasis on bill A1986 also known as the New Jersey Values Act. Breaking down the bills goals and what it aims to accomplish will be important as well as tracking sponsors. Continuing to check for community support and feelings will be important and to research how to gain support from other legislators will be vital to move bill forward.

Outcomes/Results: On February 16th, 2022 a meeting was held alongside different immigrant rights organizations. During the meeting, immigration issues were discussed in regards to New Jersey and different pieces of legislation were highlighted as well as a need for more public support. As the internship comes to an end, a recommendation was made to Assemblywoman Chaparro and her staff letting them know any missing pieces that the legislation fails to try to solve. The recommendation depicted how bill A1986 began and where it currently stands at this moment, there has been an increase in sponsors, as well as an increase in outreach from organizations to the public.

Evaluation/Conclusion: Research has been completed to track key pieces of legislation that would benefit the immigrant community in New Jersey especially focusing on the New Jersey Values Act. Ideas to gain public support were looked into in regards to gaining support to legislation currently in the New Jersey Legislature. There does seem to be more support from the public as well as legislators increasing from two co-sponsors to seven co-sponsors and from one primary sponsor to two primary sponsors.
Title: Developing a full Business Plan for Mental Health Magazine

Name: Anthony Gonzales-Hoyos

Preceptors: Maggie Rose

Agency: The Inspired Co.

Purpose: To develop a business plan for a magazine that features mental health related articles in an effort to raise awareness of the subject.

Significance: The Inspired Company’s mission is to save lives by serving as a resource for people struggling with mental health problems. Suicide has been identified by the CDC as the second most common cause of death among Americans ages 10 through 30. It is the tenth leading cause of death overall. According to the WHO, stigma, perceived ineffectiveness, and a desire to handle treatment on their own were identified as the biggest barriers for individuals who were in need of mental health treatment. The magazine will further the company's mission and business goals. To further guide the development of the magazine into a full scale publication, a business plan is necessary.

Method/Approach: LivePlan was used to create an outline for the business plan. Major elements such as target market, magazine mission and vision, and expectations were brainstormed collectively by the team. Input was received from the Inspired Company CEO to guide the process. Individual sections of the business plan were divided between the intern and the magazine director. The business plan was developed on a shared document to allow collaboration and guidance. Market research on existing competitors and alternatives was conducted to assess the viability of the plan. The completed magazine business plan was presented to the CEO.

Outcomes/Results: A 23-page business plan was developed that will serve as a guide to the development of the magazine. Major elements developed within the plan were the problem and solution, target market, market segments, competitor analysis, competitive advantage, marketing plan, sales plan, and forecast. A budget was developed to explain capital requirements and what the money would go towards. An analysis of the existing market was conducted and revealed that of all the existing competitors, none are found within the US, and further, none target US readers. The business plan was approved by the CEO.

Evaluation/Conclusion: The best evaluation tool for the success of the business plan is the number of readers the magazine picks up and revenue generated in the years following the implementation of the business plan. The magazine's business plan has forecasted expected subscriptions and revenue for several years. The pricing strategy of the magazine allows for there to be a discrepancy between number of readers and revenue generated. Therefore both metrics will be necessary. One factor that may affect evaluating the plan's effectiveness is the fact that the business plan is a living document. The business plan will be changed over time to better meet its goals. All in all, the business plans development was a success. The plan was able to present its goals and strategy for achieving them. The plan was also able to demonstrate that it can successfully compete in the current market. The magazine is currently publishing digital articles in a raw form online. This business plan will help to transform it from the passion project it currently is into a successful magazine.
Internship Abstract

**Title:** Electronic Health Record (EHR) Patient Data Transfer and Analysis

**Name:** Sky Gonzalez

**Preceptors:** Direct & Project Supervisor: Dr. Annette DaSilva DO., FAAPMR, FAOCPMR

**Agency:** The Center for Medical Healing

**Purpose:** To analyze the benefits of the EHR system and create a workflow to transfer paper medical records to the EHR, AdvancedMD program.

**Significance:** A primary benefit of utilizing an Electronic Health Record (EHR) system is improving the efficiency of a healthcare facility. According to the US National Library of Medicine, the use of an EHR system was found to improve the time efficiency of patient encounters by 12.6% to 45.5% (Poissant, L. et. al.). The results of the study show that utilizing an EHR system increases documentation time of physicians by 17.5% (Poissant, L. et. al.). EHR is a tool that can transform work processes and healthcare efficiency, and while promoting the innovation of patient care.

**Method/Approach:** Prior to AdvancedMD utilization, both patient encounter time and the documentation time of the physician were recorded in Microsoft Excel. Patient encounter time is the amount of time it takes for a patient to be seen by the physician from the moment they check-in to the moment they check out; the documentation time of the physician is the time it takes for the physician to complete the patient’s medical note in full. To ensure the system was completely set up, demo videos were watched and representatives were contacted. Once all system features were in place, the paper files for each patient were obtained and organized so that the transfer process could begin. The first step was to create each patient profile, which includes entering their name, demographic data, and insurance information. Following, all patient medical notes from 2021 were scribed into the system with coinciding charge slips; all notes preceding 2021 with bills that had already been paid were scanned and imported into the system. Once all information was transferred and the system was ready to use, patient encounter time and the documentation time of the physician were again recorded in Microsoft Excel.

**Outcomes/Results:** The files of all patients were successfully transferred to the AdvancedMD system. As a result, this project has improved office efficiency because it decreased patient encounter time and physician documentation time. Before AdvancedMD, patient encounter time was recorded for 20 patients in Microsoft Excel, and the average encounter time was calculated to be approximately 29.6 minutes. After implementing AdvancedMD, the average patient encounter time of 20 patients was reduced to 23.2 minutes. Now, the doctor does not have to spend as much looking through the patient’s chart for previous medical history, and the office manager is able to easily check the patient in and out, record and collect patient co-pays, and generate patient bills. In addition, the documentation time of the physician was recorded. Prior to AdvancedMD, based on a sample of 20 patients, to record one patient note by hand, it would take the physician approximately 11.4 minutes. After AdvancedMD, to record one patient note using a computer, the average documentation time was calculated to be approximately 6.8 minutes. This can be attributed to the templates already set in the computer, with pre-set text options, and patient medical history being copied electronically from one note to another, as opposed to handwriting all of this information.

**Evaluation/Conclusion:** An EHR system has proven to be beneficial because it decreases both patient encounter times and physician documentation times. Consequently, this improves office efficiency and the care each patient receives, improving overall health. This process should be repeated to ensure that the EHR system is consistently improving the efficiency of the healthcare facility.
Title: Resident Voice Strategic Plan

Name: Julian Goodman

Preceptors: Tyler J. Breaux

Agency: Monmouth Acts

Purpose: To improve the distribution of resources to residents in need by developing a strategic plan that will help guide the implementation of resident voice in the Community Engagement Network for Monmouth Acts.

Significance: Many residents in Monmouth County, New Jersey still struggle to maintain the basic needs of living despite the county having a better socio-economic status than most other counties in the state. A human needs assessment was conducted in 2016 by the county with over 1,100 participants. The assessment found that 14% of residents in the county are foreign born and 18% of these residents speak a language different from English at home. Among older populations in the county, results from the assessment determined that residents were aging at a greater rate than the state and country with 16.1% of residents being older than 65 years of age and 1,287 of these residents raising their grandchildren. Additional findings were that 9.3% of residents are suffering from food insecurity, 23% of eligible children are not enrolled in free lunch programs, 30% of households earn less than $50,000 per year, 30% of suicides are completed by people under the age of 18, and transportation is limited in the Western part of the County. The key recommendation of the assessment is that there is a requirement for innovation in community sharing and resource navigation. It is the goal of the Strategic Plan to guide the implementation of improved resource distribution by giving a platform for Community Voice.

Method/Approach: The Resident Voice Strategic Plan was modeled by a similar initiative completed by the Annie E. Casey Foundation. Initial research was conducted on the method of acquiring Resident Voice through relationship building. Three phases have been determined to complete this initiative: seeding relationships, deepening relationships, and creating a sustainable leadership model. It is the goal of the Community Engagement Network to make 150 community connections. The first step of this approach was to compile all the connections made in the Community Engagement Network and identify locations that lack substantial connection. An onboarding process was created to form a connection in the network. This is done through data collection through a survey completed and stored on a connection’s services, purpose, and needs. The final step was to create a method of information distribution using the service Constant Contact. Through this service, packages of information have been distributed for housing, food, and mental health aid.

Outcomes/Results: Officially, 116 connections have been established out of the 150 goal. Among these connections are faith-based organizations, community-based organizations, local government officials, and non-profit businesses. Over 25% of the established connections have completed the onboarding survey. The use of Constant Contact to distribute information packages has started and official initiatives for resident feedback data collection are in a developmental phase.

Evaluation/Conclusion: The data collected by the initiatives detailed in the Resident Voice Strategic Plan will be compiled into interactive maps and reports that will be further used to further improve the services provided by Monmouth Acts and its partners.
Purpose: Increase businesses profitability by reducing cost and increasing enrollment with the use of marketing strategies.

Significance: Due to Covid-19, Kidstart Learning Center has faced many financial challenges. The facility was at capacity of 69 students and now because of the pandemic, the enrollment has drastically decreased to 28 students. For the year 2021, the business lost over 192,000 in tuition because students were out with Covid-19 related matters and accounts were credited. The company also noticed that payroll expenses were over $30,000 a month which made it very difficult to cover payroll taxes. To combat this issue for the year 2022, the goal is to cut expenses in payroll and increase marketing to drive new clients.

Method/Approach: The first step to identifying the amount of money lost for the year, was to review the business financial reports from the previous years to date. This included tuition, miscellaneous, credits and payment charges. From here it was decided that it would be best to create a new efficient classroom and staff schedule to control cost. Initially there were multiple teachers in each classroom due to classroom demands. However, due to the different age ranges of the children some rooms only required one teacher. In addition to attracting new customers, the company made a decision to revamp the business’s current marketing tools. These tools included a commercial, new brochure and continuous social media updates for the daycare.

Outcomes/Results: Due to the shift in the marketing strategy the company was able to have 9 new enrollment as of April 1st, 2022. If the company continues to trend on this path they will have between 35-40 new enrollments by the end of the year. KidStart Learning Center’s social media has gained the attention of new viewers and it led to 3 tours of the daycare. In addition, one family out of the three enrolled their child into the program. As a result of the effective new schedule, the company was able to cut expenses by $5,000 per month. The decision was made to cut employee hours and pay employees for hours worked rather than hours scheduled.

Evaluation/Conclusion: The project results demonstrated that the company was able to increase profitability and enrollment. Although the company saw a decrease in expenses it also came with a cost, resulting in the loss of employees. In addition, once a child is enrolled into the daycare, it will now be verified how the clients found the business. Continuous social media postings were key for attracting new customers and it was proven by the verification process of the new enrollees, that the increased presence on all social media platforms was a significant factor in how the business enrollment increased overall.
Internship Abstract

Title: Determining The Preferred Home Storage Type For Gun Owners

Name: Hannah Greer

Preceptors: Project Preceptors: Michael Anestis, Director of Gun Violence Research Center
Jessica Buck-Atkinson, Director of Literature Review
Megan McCarthy, Assistant Director of Literature Review

Agency: Gun Violence Research Center

Purpose: To improve and extend the research of the Gun Violence Research Center through aiding in the review of literature used for their studies and papers. The ultimate purpose of this research is to help identify the most used preference for safe home gun storage and how this can be improved upon to minimize the risk of home suicides.

Significance: Each year, there are over 45,000 suicide deaths in the United States, 51% of these deaths being by firearms. Suicides are up to five times as common in homes with firearms, but the key to preventing suicides this way is not changing who owns firearms but their access to them. On average, an individual has owned a firearm for 10+ years prior to using it for suicide. Evidence indicates that creating more space between those who are experiencing suicidal thoughts and access to firearms can prevent suicides. The Gun Violence Research Center is working towards finding the most preferred gun storage options for firearm owners to help determine the best way to prevent suicides within the home and provide advice for better gun storage. This project helps determine the most prevalent type of storage and ways to improve on this.

Method/Approach: The team will be helping gather qualitative data as well as analyzing it to help find the best information to help with the overall literature review and study conducted. By gathering information and compiling it this way, it helps me to better understand the information, the statistics, and the anecdotal evidence within to demonstrate how this research is beneficial to suicide prevention.

Outcomes/Results: The overall literature review showed many ways that gun owners choose to store their guns. Many of the reviews showed that these storage practices can differ widely from location as well as from male to female. Additionally, some veterans have their own preferences when it comes to storage. Other factors such as how many children were in the house had a slight influence on the types of storage that are utilized within the household.

Evaluation/Conclusion: This research has been very successful in achieving the goals that were set out. This project aimed to analyze the different gun storage options available as well as the general public’s preferences for these. By reviewing multiple research articles and identifying which were beneficial to the study, we were able to examine these different storage practices as well as the public’s use of these.
Internship Abstract

Title: Event & Activity Management/Coordination

Name: Anthony Gutierrez

Preceptors: Quadai Palmer President and Co-founder

Agency: From Jersey With Love

Purpose: To work with groups in planning, coordinating, and managing events that will help both the community and expand From Jersey With Love’s reach.

Significance: In America close to 40 million people suffer from hunger and struggle to feed both themselves and their families. Monmouth County, where Asbury Park is located, has close to 10% of people suffering from food insecurity, and 20% of children in Monmouth county suffer from food insecurity. From Jersey With Love looks to help the community, by providing food with their weekly food pantry serving around 300,000 pounds of food and nearly 200 families per year. In addition, they also provide numerous other events, such as toy drives, leadership conferences, lifestyle tips, clothes drives, and job readiness meetings. The project will focus on expanding From Jersey with Love’s outreach to ensure people are aware of the numerous programs and make sure that the programs can help the community’s area of need.

Method/Approach: The project is the Giving Tuesday campaign. The campaign is designed to help gather funds so From Jersey With Love can run programs, help spread its recognition, and gather information so individuals can know about future events. The program is designed as a donation campaign where if someone donates $5 or more they get a wristband that is designed for From Jersey With Love. Doing this will provide an incentive for people to donate, while also allowing for people to wear the wristbands to further spread the recognition of From Jersey With Love. In addition, we have a higher donation mark of $50 where the person’s name will be engraved on the From Jersey With Love plaque that will be in the main office. Those who donate will have their emails added to the From Jersey With Love newsletter to hear about future events and programs. The last thing being done is creating a flyer with a QR code for the payment method. Doing this will allow for the flyers to be hung around the Asbury Park and Rutgers community allowing it to reach new audiences.

Outcomes/Results: As of April 13th, 2022 the Giving Tuesday Campaign has raised $150. In addition, the campaign has been spread over numerous social media accounts and social media websites. The QR code from the flyer has been scanned by over 20 unique users. The flyer has and will continue to be posted in hot spots in the Rutgers and Asbury park communities. By continuing to do this the project will continue to grow and reach new eyes and the donation number will continue to grow as a result, further aiding From Jersey With Love in the future.

Evaluation/Conclusion: This project has been a success in achieving the goals set out. $5 can feed a family of 4 for a week and at the current moment, the campaign has raised $150. That will come out to 30 families or 120 people fed properly for a week. In addition, the name and recognition of From Jersey With Love continue to grow as the campaign continues to get promoted through flyers, wristbands, and social media. Those who donated have also been added to the email list for future programs. This will aid From Jersey With Love’s ability to provide programs and food pantries in the future and aid in their quest to achieve grant status from the state.
Title: Urban Dawa’ Center Community Dinners

Name: Ryan Gyllenhammer

Preceptors: Dr. Shadee Elmasry - Founder and Executive Director

Agency: Safina Foundation

Purpose: Organizing volunteers to provide food and support to the underserved community of downtown New Brunswick through weekly community dinner gatherings.

Significance: The immigrant population in the United States is disproportionately affected by poverty, given that their poverty rate is double the rate of the native population. The 2022 population data for New Brunswick, New Jersey revealed that 31.5% of residents in New Brunswick are foreign born. In addition, 65% of those immigrants in New Brunswick are not documented citizens. The immigrant resident percentage in New Brunswick is more than double the percentage of immigrants in the entire country. Safina Foundation recently opened a community center to support the local population. The doors are open to anyone in the community for free food, free clothes, and companionship every Wednesday.

Method/Approach: The on-site manager role coordinated chefs, weekly volunteers, and dinner servers in addition to supervising the operation. In the beginning of the week, volunteers brought clothing donations from the local mosque and were observed while they sorted out the clothing for guests. To logistically prepare for the dinner each week, rosters of chefs and volunteers were collected from a signup document. Afterwards, some dinner volunteers arrived 2 hours before the opening and set up dry goods and utensils, while others walked through the community distributing flyers. At 6pm the doors were opened and every volunteer took a position whether it was serving food, cleaning, or welcoming guests inside. When the dinner ended at 8pm, all volunteers reviewed the day with management and began the cleaning process to optimize for the next group of volunteers to arrive next week.

Outcomes/Results: Connecting and supporting the local community is vital work and the results are being displayed through the relationships that have been formed, increased fluidity in the operation, and increased monetary support. The goal has been to prepare the building for renovations and to display this successful operation to a large donor base, as this will help better serve the community. Not only have local community members found warm support in the Urban Dawa’ Center, but now they are asking to become volunteers themselves. Many of the volunteers and chefs are recurring and feel connected to the purpose of the operation. Lastly, $100,000 was raised from a crowdfunding campaign and renovations are set to begin at the start of the summer. Now that donors have seen plenty of preliminary success, this operation is better equipped to serve the community throughout the summer.

Evaluation/Conclusion: On average, 50 guests attend the weekly dinners and approximately 75% of them return the next week. Additionally, there are a minimum of 5 new faces arriving for each dinner. These facts indicate that the service being provided is beneficial and the word is spreading quickly. The operation began with 9 guests attending and is now easily catering to 50 guests each week. The immediate spike in attendance from the community clearly shows that the Wednesday night dinners are fully effective. Efforts will be made to expand this effort to other days of the week with the same consistency and success as the Wednesday night dinners.

Citations: https://docs.google.com/document/d/1f4xJe_n-Kxt-RkFFoDr24pOEyijfYhsbFRUN7zD0go/edit
Internship Abstract

Title: Advocacy for Juveniles Waived to the Adult Prison System

Name: Elizabeth Haddad

Preceptors: Kathy Wright, Executive Director

Agency: New Jersey Parents’ Caucus (NJPC)

Purpose: To advocate for juveniles that have been waived to the adult prison system.

Significance: New Jersey law mandates that youth waived to the adult prison system must be protected from solitary confinement, and those under the age of 21 be given the opportunity to be incarcerated in a juvenile prison. Yet New Jersey children who are tried as adults continue to be subjected to inhumane conditions such as solitary confinement beyond 30 and 60 days, and are incarcerated in an adult prison upon sentencing, regardless of their age. The New Jersey Parents’ Caucus Youth Justice Initiative collaborates with organizations throughout the state of New Jersey to reform the practice of juvenile waiver, solitary confinement, youth transfer, and racial and ethnic disparities in New Jersey’s Justice System. This project helped to spread information about the children waived into the adult corrections system, as well as advocate for them.

Method/Approach: The first step in increasing advocacy was creating a program called NJPC Watchmen. NJPC Watchmen consisted of a weekly article written and promoted on social media platforms talking about specific injustices seen by the Department of Corrections (DOC). These injustices were reported by NJPC Youth Caucus members currently incarcerated, communicated through JPay. A petition was created requesting NJ legislators to hold the DOC accountable for injustices seen in the Justice System. Biweekly “Treating Youth as Youth” Campaign meetings were held that focused on strategies for avocation for youth waived. New Youth Caucus members in the NJPC were added to the database. Four outreach events were held to inform the public about the programs and support offered by the Youth Justice Initiative.

Outcomes/Results: Ten social media posts were added to each platform (Facebook, Twitter, and Instagram) between February 3 and April 5. The NJPC Watchmen posts averaged over 2,000 views per post. As of April 12, the petition has received 111 signatures. Six new Youth Caucus members were added to the database between January 24 and April 10. Over fifty individuals were reached during the outreach events and were given brochures and flyers to further assist their needs.

Evaluation/Conclusion: The advocacy for juveniles waived to the adult prison system will help raise awareness of the inhumane treatment taking place in prisons throughout the State of New Jersey. Those with children being waived will have an organization to reach out to. Legislators and the Commissioner will be aware of the injustices seen in the Criminal Justice System, and pressure will be applied to the DOC and JJC to make drastic changes of the current procedures in place. The database will help NJPC keep track of all its Youth Caucus Members and analyze the data to create fact sheets and informational reports.
Internship Abstract

Title: Low Vision Program Assessment

Name: Eruj Hamid

Preceptors: Dr. Bethany Fishbein, Low Vision Program Director

Agency: Low Vision Center of Central New Jersey

Purpose: To evaluate the current Low Vision Program and make modifications that will improve each patient’s low vision evaluation and overall achieve greater patient satisfaction.

Significance: Individuals with low vision (caused by diseases such as macular degeneration and diabetic retinopathy) struggle with their day to day tasks, as their vision is often significantly impaired (National Eye Institute, 2022). According to the American Medical Association, age related macular degeneration affects more than 1.75 million individuals in the United States, and this number is projected to increase over the next few years (American Medical Association, 2004). The Low Vision Center of Central New Jersey focuses on helping people with vision impairments to maintain their independence, have the ability to perform their daily tasks, and improve their overall quality of life through the use of optical and non optical vision aids. The Low Vision program is intended to adjust the low vision process in order to allow patients to have a more comprehensive and higher quality eye care experience.

Method/Approach: Prior to the implementation of the Low Vision Program reevaluation, low vision patients underwent a prolonged period of time filling out forms, or providing extensive medical information. In order for patients to be able to spend more time being evaluated by the doctor, a procedural change was implemented to keep track of incoming low vision patients and their information through a spreadsheet. When scheduling their evaluation, patients were given appointments to answer screening questions through a phone interview. In this 20 minute phone interview, patients were asked a comprehensive set of questions that would allow for doctors to have complete medical history and information. On the spreadsheet, information was noted. On the day of the patient’s evaluation, the medical information was copied over to their medical record, which made them eligible to begin their evaluation upon arrival.

Outcomes/Results: After implementing procedural changes to the Low Vision program, it became evident that the modifications had resulted in significant facilitation of the entire process. After a thorough evaluation and implementation of procedural changes, all incoming low vision patients were accounted for. It was identified that each low vision patient saw a significant reduction in time for pretesting, which allowed them to spend a greater portion of their evaluation time with the doctor. Furthermore, it was calculated that the practice began to see weekly pretesting time averages of around 15 minutes, instead of 40 minutes, which was the amount of time that it would take prior to the implementation of modifications.

Evaluation/Conclusion: It is important to consider how much information patients are willing to provide over the phone interview, their mobility, how many glasses/devices they have that need to be checked, among other factors when evaluating how much time they have to spend during the evaluation. However, consistency with the modifications in the program (tracking each patient, taking patient information, conducting phone interviews) leads to the most efficient results in the overall patient experience as well as the Low Vision program.
Title: The Use of Physical therapy for Alleviation of Pelvic Floor Dysfunction

Name: Menatallah Hassan

Preceptors: Dr. Gloria Bachmann, Director of the Women’s Health Institute

Agency: Robert Wood Johnson Medical School Women’s Health Institute

Purpose: To analyze symptoms of pelvic floor dysfunction while presenting physical therapy as a possible intervention.

Significance: Pelvic floor disorders affect about 24 percent of women in the United States, with an increased prevalence amongst older women. According to the National Institute of Health (NIH), about 40 percent of women with pelvic floor disorders are 60-79 years of age (2018). Pelvic floor disorders can cause urinary incontinence, fecal incontinence, and even pelvic organ prolapse. It is estimated that about 50 percent of women in the United States will experience pelvic organ prolapse by 2050 (Romeikiene & Bartkeviciene, 2021). This relays the detrimental magnitude of pelvic floor-associated issues for the future of women’s health. Through evidence-based research, intervention methods will be explored in mitigating pelvic floor disorders in women.

Method/Approach: A two-part literature review was conducted using peer-reviewed journals and articles. Google scholar and PubMed were the databases utilized in this review. For the first part of the review, the implications of pelvic floor dysfunction were identified. For the second part of the literature review, the use of physical therapy as a means of intervention was analyzed. Keywords were pelvic floor physical therapy, pelvic floor dysfunction, pelvic organ prolapse, urinary incontinence, prepartum, and postpartum.

Outcomes/Results: There are a multitude of factors that influence pelvic floor dysfunction (PFD) which includes parity, older age, obesity, and family history. However, it was found that parity and labor are the greatest risk factors for PFD. There was a direct positive association between women with multiple children and PFD. It was reported that 12.8% of women who never gave birth had symptoms of PFD as compared to 34.2% of symptomatic women with three or more children. Physical therapy was found to yield promising results for mediation of PFD. In fact, physical therapy improved muscle strength and coordination, which in turn improved quality of life. Pelvic Organ Prolapse (POP), a type of PFD, is categorized in severity from stage 0 to stage 4, with 0 being minimal severity and 4 being maximal severity. For women with stage 1, 2, or 3 POP, physical therapy was found to significantly reduce symptoms as well as severity within 12 months (p=.00053). Physical therapy essentially elevated the position of the uterus, bladder, and rectum which alleviated the associated symptoms of PFD.

Evaluation/Conclusion: The findings of this study relay the high prevalence of PFD amongst women, especially those who have given birth. Not only is PFD debilitating, but many women fail to attribute their symptoms with the disorder. For that reason, awareness of the disorder can allow for earlier detection, and therefore earlier intervention. Pelvic floor physical therapy is a minimally invasive, effective intervention for those with PFD. Many studies obtained up to date on this have shown reassuring results, however, more research on peripartum and postpartum PFD physical therapy can further validate existing studies.
Internship Abstract

Title: Low-Income Patients Maternity Episodes of Care Accessibility

Name: Angelina Haw

Preceptors: Stacey Knowles, Director of Managed Care
Project Supervisor: Jennifer DiGirolamo, Managed Care Coordinator

Agency: Saint Peter’s Healthcare

Purpose: To study the New Brunswick area’s low-income population’s accessibility to maternity episodes of care and how to address the population’s social determinants of health.

Significance: New Jersey is currently ranked 47th in the nation for maternal deaths and has one of the largest racial disparities for maternal and infant mortality. Saint Peter’s University Hospital, located in New Brunswick, delivers more babies than any other facility in central New Jersey, having delivered more than 5,300 babies in 2021 and, with their Women’s Health Clinic meeting 40,000 to 50,000 patients yearly. The U.S. Census showed that 34.4% of the population in New Brunswick live in poverty and studies have shown that low income women suffer from more chronic conditions and risk factors that can have a negative impact on maternal health and birth outcomes. By finding out what social determinants affect the low income maternity patients in accessing prenatal care and offer solutions, maternity episodes of care can increase in participation and make quality improvements.

Method/Approach: A review was conducted to assess the proportion of low-income women who visit the Women’s Health Clinic. Data was exported and compiled into an Excel spreadsheet highlighting the maternity volume of patients in the Women’s Health Clinic and the Saint Peter’s University Hospital. Interviews were conducted with multiple staff members at the clinic regarding their screening process for low-income women. Their screening process consisted of perinatal risk assessments, meetings with financial counselors and social workers, and packets containing social service resources.

Outcomes/Results: In 2021, 981 out of 1,251 (78.4%) women were insured by Medicaid/Managed Medicaid or Charity Care. Looking further, 49 patients were pending Medicaid. 24.9% were straight Medicaid, 2.23% were Charity Care, 49.5% were Managed Medicaid, 17.6% were commercial plans, and 6.55% were self-pay. According to the clinic’s staff, the main social determinants patients faced were lack of accessibility to transportation, education, child care, food, and stable cell services.

Evaluation/Conclusion: More than three quarters of the maternity patients who attend the Women’s Health Clinic were insured through low-income programs. The various services offered at the clinic, such as nutrition, social work, resources, etc. address the multiple social determinants patients experience through educational pamphlets/packets; collection of numbers to social service resources, such as food banks, transportation services, and domestic abuse hotlines; bilingual employees; and assistance in enrolling in insurable programs like Charity Care and the NJ Medicaid plan. Education and information relayed by the staff are catered to those with low-income by adjusting food recommendations to healthy, yet non-perishable, fiber intensive, low-cost meals. Paper and phone appointment reminders, continued risk/financial screenings, sit-down education/counseling on offered services, and community outreach programs will help effectively address the social determinants faced by low-income maternity patients. Observation of the low-income population and their social determinants will continue in order to provide improvements.
Purpose: To analyze data on volume, patient demographics, and wait time trends in Urgent Care Telehealth from November 2021 to February 2022.

Significance: Telehealth has grown exponentially over the past few years, in part because of the COVID-19 pandemic. There was a 38 time increase in telehealth utilization using pre-pandemic data (Bestsennyy, Gilbert, Harris, & Rost, 2021). With a greater increase in usage, telehealth trends need to be analyzed to understand the needs of our community to ensure that patients are receiving appropriate, timely, and quality care. There are a variety of patients that use our services and we need to have the proper resources and data to provide care. An analysis can be made on how to move forward in telehealth by using patient data and volume trends.

Method/Approach: Gathering data and relevant information from November 2021 to February 2022, charts and graphs were used to show trends before, during, and after the COVID-19 Omicron variant surge. The graphs and charts were developed to be concise and clear to follow. In preparation for the data and analysis, research was conducted to provide information on telemedicine. In addition, there was research on the surrounding health care systems and their telemedicine service to compare with Virtua Health in services provided, price, and accessibility. Once all the necessary information was prepared, trends of the data within Urgent Care Telehealth was analyzed. Excel was used to create charts, graphs, and for mathematical equations for the analysis.

Outcomes/Results: Examining the 3,625 patients that used the Urgent Care Telehealth service, those in their 30s and females utilized the service more than any other age group. However, those in their 40s saw the greatest increase from pre-Omicron at an increase of 286%. Males also had the greatest increase from pre-Omicron at 236%. Analyzing volume, there was an 189% increase from pre-Omicron surge data. In analyzing wait time, patients are scheduled out days in advance to manage the increase in volume during the surge. The median wait time from when patients were scheduled to when they were seen by the provider is 154.23 minutes, which is an 8.8 time increase from pre-Omicron data. During the 7 o’clock hour, it experienced the longest wait time, whereas, in pre-surge data, the longest wait time is during the 10 o’clock and 11 o’clock hours.

Evaluation/Conclusion: Telehealth is growing, and understanding the community’s needs will better prepare for the changes. The uptick in demand during the Omicron surge prepared the department for future adjustments. To ensure that data on patient demographics is complete, the team should be cognizant of missing or incomplete information. Focusing on the wait time - communication is needed in order to set proper expectations for patients and to let them know to be ready for their turn. Without consistent communication, delays are bound to occur, which will push back on the schedule. There are also a few outliers within the wait times data that can be addressed by ensuring that proper steps are taken on Epic for when the visit starts and ends.

https://docs.google.com/document/d/1yZapWvpcHfsrpVusnwe_XE76E3v_XBeDkZPjU97cI3k/edit
Internship Abstract

Title: Newark East Ward's Community Health & Wellness Fair

Name: Carolina Heleno

Preceptor: Colette M Barrow, MPA, PhD - Executive Director of Community and Population Health

Agency: University Hospital

Purpose: To enhance access to culturally competent care for University Hospital's (UH) patients and assess Ironbound community health needs through the implementation of a community health fair.

Significance: UH serves the Ironbound area of Newark, NJ, but many of the neighborhood residents are unaware of the healthcare options offered and available to them. The Ironbound is predominantly composed of immigrants and their descendants from Portugal, Brazil and Latin America, and Africa. Unfortunately, there is a lack of health data with these communities which reveals that not much community health outreach has been done. Outreach into this neighborhood assists UH in delivering culturally and ethnically diverse health care services and resources. Sponsoring periodical community health fairs is one way to increase awareness of the hospital and its services.

Method/Approach: Weekly meetings with the planning committee were held until the day of the event. Multilingual promotional materials like flyers (in Spanish and Portuguese) were distributed in the area to reach community members. Multilingual surveys (Google forms) were created to collect attendee demographics and linked to an Excel spreadsheet to facilitate event evaluation. Upon entry, attendees were assisted while completing the surveys and directed towards the screenings/services they needed.

Outcomes/Results: At the event there were 81 staff/vendors and 84 attendees present. The following was attendee location distribution: Newark (65, 77.38%), Kearny (7, 8.33%), and Elizabeth, Hillside, and North Arlington each had 2 (2.38%). These locations each had 1 (1.19%): Clark, Union, Bond Brook, Linden, Mountainside, N/A. The following was the ethnicity distribution: Portuguese (57, 66.67%), Brazilian (18, 21.43%), Black/African American (2, 2.38%), N/A (2, 2.38%). These ethnicities each had 1 (1.19%): African, Colombian, Ecuadorian, and Mexican. The languages most preferred to receive care were: Portuguese (58, 69.05%), English (15, 17.86%), and Spanish (3, 3.57%). The most requested medical services were general medicine (22), dental care (16), and insurance (10). The following screenings were done: audiology (27), blood pressure (BP) (75), and glucose (54). There were 3 SDOH intakes completed, 45 dental and 5 charity care appointments made, 27 appointment inquiries, 12 appointments made, and 5 appointments brought back to office to be scheduled.

Evaluation/Conclusion: Attendees represented the main ethnic backgrounds in the Ironbound. 22.62% were not Newark residents, highlighting UH’s effective promotional efforts at providing outreach. More than half received BP and glucose screenings. Some factors that affected the turnout and services given were: location of event, connectivity issues, limited number of PCs, and inadequate number of translators. Some data was unable to be evaluated due to poor data collection amongst staff/volunteers onsite.
Internship Abstract

Title: Rutgers Day for Gun Violence Awareness

Name: Soraya Herrera

Preceptors: Patrice Harley, Communications Specialist II

Agency: NJ Gun Violence Research Center

Purpose: To gather information and prepare events for the 2022 Rutgers Day event.

Significance: In the United States, around 40,000 people are killed due to gun violence annually. Sixty percent of suicide deaths result from firearms. NJ Gun Violence Research Center focuses on prevention, safety measures for responsible gun ownership, identifying the nature of the gun violence, and effectiveness of current laws and policies. Through communication with government and local officials, they increase awareness of interpersonal gun violence within communities affected for safer environments. This project increased awareness and solutions to the rise of interpersonal gun violence for the public at the 2022 annual Rutgers Day event.

Method/Approach: The communications specialist constructed a budget. The Rutgers “swag” representative was contacted to choose appropriate Rutgers branded items. To advertise Rutgers Day and Research Day (in May), estimates were gathered from radio stations Magic 98.3 and 101.5 and local newspapers NJ Patch, the Star Ledger, and the Trenton Times. A Google search was conducted to find local artists who focus on gun violence to display at the event. Mason Gross School of the Arts was also contacted to find volunteer artists as well. A trivia game was compiled by the team to be used at Rutgers Day. Visitors who answer correctly get a chance to spin a wheel to win one of the swag prizes. Information was gathered about the Center for a tri-fold brochure, which included the mission, vision, infographic of a recent study, a QR code directed to the website, and social media accounts.

Outcomes/Results: From the Rutgers “swag” site, 25 masks, 150 keychains, and 24 t-shirts with the center’s logo were chosen and ordered. Magic 98.3 and NJ 101.5 along with the Star Ledger, The Trenton Times, and the NJ Patch were contracted for advertising. Local artists were hired to share gun violence driven art and stories behind gun violence shared with these artists. One hundred tri-fold brochures were created in Canva and sent to CRW Graphics for printing.

Evaluation/Conclusion: Planning for Rutgers Day was a fun experience. Rutgers Day is an opportunity to educate and engage many people in the local communities about the different organizations and the mission and vision it entails. One challenge was not being able to have a projector to display some visuals due to timing and setup. Another was finding out Rutgers only allows purchasing items from their website, which didn’t carry some items the organization wanted. Future events should start at the very beginning of the spring semester, start brainstorming early and get everyone involved.
Title: Pathways to Trust’s Time to Listen to Rare Disease Campaign

Name: Shane Honkisz

Preceptors: Cheryl Galante, Executive Director

Agency: Pathways to Trust

Purpose: To find potential rare disease partners, stakeholders, collaborators and sponsors to develop programs that elevate the patient’s voice in their medical care and increase their access to care.

Significance: In the United States, rare diseases affect an estimated 20-30 million people. These patients experience a myriad of difficulties, including limited options for treatment, severely reduced access to proper care, and barriers to obtaining an accurate diagnosis. Pathways to Trust brings the various stakeholders of the healthcare industry together to create programs for physicians and patients for the purpose of increasing patient-provider awareness and understanding of the little-known pathophysiology, complications, and treatments associated with rare diseases. By implementing such programs, Pathways to Trust and other stakeholders increase health care provider familiarity with rare diseases, leading to an increase in the quality of, and access to, medical care provided to patients with rare disease.

Method/Approach: Potential grant makers or foundations were identified with the capability to provide funds through grants to applicants and added to a spreadsheet. First, Google Search was used to locate the majority (x > 75%) of the potential grantmakers/sponsors/partners, and governmental websites were used for the rest (x < 25%). Second, potential grantmakers/sponsors/partners were added to their respective page on the spreadsheet. Third, each organization was researched to determine their viability (alignment with Pathways to Trust’s organizational mission and patient-centered culture). Lastly, all findings/information were reported to the preceptor. Project proposals were reviewed, and adjustments made based on health administration concepts such as value-based reimbursement, continuum of care, and HCAHPs.

Outcomes/Results: Data for 43 local/community sponsors, 71 foundations, 77 pharmaceutical sponsors, 24 partners/collaborators, 8 national corporate sponsors, and 6 media partners were exported and organized into the shared spreadsheet. Within the spreadsheet, notes and additional information was recorded for each grantmaker/sponsor/partner, regardless of viability. In terms of viability, 100 grants found on New Jersey Grant Watch’s website were inspected, with 9 of those being deemed viable choices. Time to Listen project proposals were accepted by Newark Beth Israel Medical Center, Overlook Medical Center, and 83 Bar. 83 Bar and NBI expressed interest in funding these programs. Due to success in partnering with Global Genes, 31/152 (20.4%) of patients participating in Global Genes’ rare disease programs reached out to Pathways to Trust’s website.

Evaluation/Conclusion: The primary pain point included an initial lack of a structured/linear grant search process, which was developed later into the internship. Given the data of the grants sample discussed in the Outcomes/Results section, it can be understood that even after applying multiple variables to narrow down the search process for grants, only a relatively small (9% in the case of the sample) amount will be truly viable after a second review.
Internship Abstract

Title: Women’s Health Institute Intern

Name: Caitlyn Horton

Preceptors: Dr. Gloria Bachmann, MD, MSS, Director, Women's Health Institute

Agency: Robert Wood Johnson Medical School’s Women’s Health Institute

Purpose: To support the Women’s Health Institute's mission by conducting research on topics relating to the health of women through a focus on middle aged women and opioid addiction

Significance: RWJ Women's Health Institute serves to further the field of research into healthcare topics relating to women and underrepresented communities by contributing to conferences and publications with research findings and summaries. By creating a literature review on middle aged women and opioid addiction, readers can find concisely displayed information on the specific topic and descriptions of trends and gaps in data, while bringing attention to an important public health issue. According to a 2017 National Report from the QuintilesIMS Institute, the age group receiving the most opioid prescriptions are women aged 40-59 years old. Compared to men, this same group of women receive almost twice as many opioid prescriptions. Dr. Azka Afzal found that opioid related deaths for middle aged women increased by 260% between 1999 and 2017, with deaths from illegal opioids like fentanyl rising 1,634%. This project supports the WHI mission and raises awareness of how opioid addiction affects middle-aged women.

Method/Approach: To learn more about the affects of opioid use and addiction on middle aged women, a literature review is conducted. Research for the review is first collected through a broad search of academic and social databases to understand the issue’s context and related topics. As most available research fails to describe issues related to the opioid epidemic by examining the factors of both age and gender, it is necessary to compile information for each factor. The review is to be converted to an abstract for the North American Menopause Society’s (NAMS) consideration. Assembled research is distributed to relevant parties to guage its success in achieving its goals.

Outcomes/Results: The review describes the specific affects of the opioid epidemic on the given population and highlights trends in data pulling from research from over 12 articles and publications. The literature review complied existing research on opioid addiction through a lens of age or gender to precisely highlight the epidemic’s direct impact on middle aged women. The intersection between age and gender is rarely studied opioid-related research. Various subtopics that could benefit for the inclusion of an age and gender focus. By specifying research more, academics can define trends for a specific population and physicians and public health professionals can better address opioid addiction for middle aged women. Using this research, an abstract will be submitted to NAMS for their consideration to be presented at the NAMS Annual Meeting.

Evaluation/Conclusion: To evaluate the goals of this project to raise awareness of opioid research on middle aged women concisely, an abbreviated form of the review will be distributed to members of relevant organizations focusing on opioid use and women’s research. Readers are asked to describe their prior awareness and rate their understanding. Opioid overdoses increase annually, and in order to address this issue for the population of middle aged women, data must be collected as new information becomes available.
Internship Abstract

Title: Establishment of Human Relations Commission to support Civil Rights in Spotswood, NJ

Name: Christina Hutchins

Preceptor: Dulce Branco-Rivera, Director of Community Affairs

Agency: Borough of Spotswood (Spotswood, NJ)

Purpose: To provide the citizens and employees within the Borough of Spotswood with events, programs, and information through a newly established Human Relations Commission which will aim to address and prevent bias-based discrimination within the community and inform its citizens what New Jersey is doing to support the Civil Rights of all of its residents in comparison to other states.

Significance: The year 2021 was a record-high year for reported bias incidents in New Jersey. This finding is startling because New Jersey has some of the strongest civil rights laws in the country. These laws are strict in this state and offer more protection than the federal government. This newly established Human Relations Commission would bring the community of Spotswood together by reinforcing the understanding of New Jersey’s Laws against Discrimination, Fair Chance in Housing Act, and Family Leave Act regardless of what is happening around the country. The aim of this Human Relations Commission is not only to educate, but to foster a stronger sense of community and understanding of other cultures and lifestyles to better embrace the diversity within Spotswood Borough as well as outside of its municipality.

Method/Approach: Educational tools such as revised New Jersey Civil Rights Commission posters and requirements for them to be displayed by housing providers, employers, and places open to the public will educate and inform citizens of the community what their rights are and how to lodge complaints if they are being violated. Preventative measures would include community involvement programs, cultural events, informative meetings and publications on inclusion and what falls under New Jersey’s Law against Discrimination.

Outcomes/Results: Neighboring towns such as East Brunswick, Princeton, and Sayreville are finding a positive result of their establishment of Human Rights Commission/Councils. During the Covid-19 pandemic the meetings went virtual and reached thousands of households on topics such as mental health, disability awareness, racial issues, religious events, and LGBTQ related topics. Residents are able to watch meetings in real time or at a later date as well as read the minutes from the meetings. This access guarantees residents can experience all that is offered. Princeton aims to cover vision and dental services as a means to secure social equity among low income populations. East Brunswick has published its first quarterly newsletter highlighting Women’s History Month. Involving the community in all topics protected by Civil Rights is giving voices to those who previously weren’t heard.

Evaluation/Conclusion: Spotswood Borough is examining the department under which to create a Human Relations Commission. It will either fall under Community Affairs, or it will be a stand alone bureau with its own agenda adopting events and educational tools similar to neighboring communities as well as create their own based on the suggestions and feedback of the community and the newly established Youth Council and liaison to the Board of Education.
Title: Raising awareness and connecting new patients to Blood Cancer resources

Name: Soriya Huynh, Student Intern

Preceptors: Erika Pomares, Senior Manager, Patient & Community Outreach

Agency: The Leukemia and Lymphoma Society - the Gulf Coast

Purpose: To address, inform, and connect new patients of the numerous blood cancer education, support, and services available through the Leukemia and Lymphoma Society (LLS).

Significance: In 2021, an estimated total of 186,400 people in the U.S. are expected to be diagnosed with leukemia, lymphoma, or myelome in 2021. Blood cancers account for 9.8% of diagnosed cancers within the U.S. in 2021. Cancer can be a difficult battle to fight and is also a very expensive one as well. According to a report in 2018, cancer patients in the U.S. spend up to $5.6 billion in out-of-pocket cancer treatments. To help alleviate some of these costs, LLS offers many resources for financial assistance for its blood cancer patients. In addition, LLS offers other resources like nutritional guidance from a specialist or linking cancer patients with others alike so they can speak to one another about their experience. This project focused on connecting new patients to LLS resources in the Gulf Coast.

Method/Approach: Patients were identified through Salesforce. Patients from the Gulf Coast were contacted via phone or email to communicate any needs or assistance they may want from LLS. Resources from LLS were provided as well as connecting them to programs offered by LLS and then were followed up with an email.

Outcomes/Results: Of the patients (n=50) contacted, only 16 patients (32%) responded to the call. They received additional resources from LLS and were informed of any programs needed. The remaining 34 patients (68%) who did not respond to the calls were left with a voice mail. Emails with a link to different resources the LLS offers were sent to them. Although more than half of the patients were left with voice messages, it was made sure that the patient still had a way to contact LLS for any resources or assistance they needed. Sharing assistance to blood cancer patients contributed to LLS’s mission.

Evaluation/Conclusion: More than half of the patients contacted were no answer phone calls while some were able to respond. Different factors can contribute to the outcome of reaching out to patients who could not answer the phone can be due to the fact that a) an NJ area code was used to call the patients thus making them hesitant to answer, or b) they were busy, at work, etc. These are not the only factors that contribute to the lack of responses. If a phone with a Gulf Coast area code was used, the outcome might have been better. LLS’s mission is to contact patients with resources and despite not being able to speak with a patient, they were still given contact information to learn more about financial assistance and programs. Ongoing communication and contact with LLS patients are still continuing to help blood cancer patients with what needs they have.
Title: Impact of Philanthropy Graduating Seniors Can Have on a Public University Post COVID-19

Name: Yasmin M Ibrahim

Preceptors: Melissa Halpin

Agency: Rutgers University Foundation

Purpose: To explore the impact of philanthropy on graduating seniors and how to encourage involvement within Annual Giving.

Significance: Philanthropy is a huge part of higher education. The Senior Campaign Lead oversees the Scarlet Senior Class of 2022 Campaign. The campaign was orchestrated to encourage seniors to get involved with annual giving to their “soon-to-be” alma mater to help support various programs that hold significance to the student. The senior class campaign helps build the future alumni donor pipeline. Establishing that pipeline is a large barrier within many public universities. The campaign works to educate seniors about the importance of a collective impact, which is not just one person making a large gift, but a group of donors choosing to give a little to make a large impact. Beginning in 1979, alumni financial donations became the largest source of private gifts to colleges and universities (Council for Aid to Education, 2005). Since then, alumni donations continue to make up the largest group of donated dollars – more than nonbusiness organizations, religious organizations, business operations, corporate gifts, and foundations (Cook & Lasher, 1994; Snyder & Dillow, 2012)

Method/ Approach: The Scarlet Senior Campaign allowed us to be able to observe which marketing practices would effectively raise funds. We strategized by building a committee of Rutgers seniors for peer-to-peer outreach. By holding large and small educational programs and events, the campaign has used signature events to bring attention to the importance of giving like the Senior Donor Receptions. The Senior Donor Reception would be used to thank donors and help them celebrate their graduation, supplemented by smaller tabling events to successfully educate throughout the campaign. We advertised these educational programs by posting flyers, sending emails, and leveraging social media posts. We offered donor recognition using philanthropy cords and various gifts to the senior class to recognize them for their philanthropic efforts.

Outcomes/Results: The goal of this campaign is to be able to compare the statistics on this current fiscal year of annual giving compared to previous years. Analyzing how different factors have contributed to whether the project has successfully understood what the incoming population of graduating seniors needs to be able to get involved with their alma mater. Midway through the semester, the project has been able to collect the estimated amount of over 400 graduating seniors out of 6119 students. The goal is to educate a minimum of 1000 about the importance of supporting Rutgers annually as an alumnus and hopefully, at least 500 of those seniors donate to an area meaningful to Rutgers.

Evaluation /Conclusion: Establishing benchmarks between Senior Class, allow for us to better measure our goals for the following graduating senior class. COVID 19 was the biggest barrier, impacting many students, however less than last year because students were not 100% remote nonetheless still destabilizing the academic year. Administering satisfaction surveys at the end of the campaign and at the Senior Donor Reception, to hear out the graduating seniors and evaluate the senior's take on the programs hosted and the communication involved in the process, will supplement the campaign to understand whether the efforts were sufficient to the set target demographic.
Internship Abstract

**Title:** Dental Health Access in Philadelphia's Underserved Refugee and Migrant Populations

**Name:** Jennifer Ignacio

**Preceptors:** Rezwan Natiq, Health Access Coordinator

**Agency:** Nationalities Service Center

**Purpose:** To maintain continuous quality improvement (CQI) practices within NSC's dental access workflow to improve quality of care and dental health access within the Afghan refugee community and underserved migrant populations within the greater Philadelphia area.

**Significance:** Poor oral health has significant negative effects on quality of life and can increase the risk of chronic diseases through risk factors associated with poor dental health. Among the growing, 19.5 million refugees and 1.8 million asylum seekers worldwide, professionally assessed oral treatment needs are largely unmet compared to their non-migrant counterparts. Accessing health care is challenging when refugees are not familiar with their host country’s health care system. The type of dental care they can receive is largely limited by the restrictive health insurance benefits of Medicaid. Even when migrant populations have access to free or low-cost oral health care services, there was a low rate of utilization for these services. The role of NSC’s health access program is to connect these refugees with free to low-cost health services to increase utilization and positive health outcomes in the refugee population.

**Method/Approach:** The process begins with dental referrals sent to the health team from clients’ case managers as this alerts the team to assess clients’ dental needs. A health assessment is then conducted over the phone to pinpoint clients’ specific dental needs and schedule appointments with the appropriate dental specialists. After clients go to their first dental appointment, a follow-up call is conducted to assess whether there were any barriers to care, such as inadequate interpretation services or insurance and transportation issues. This entire process is completed several times until clients feel comfortable accessing dental health services within the city of Philadelphia and establish agency navigating the U.S. healthcare system. Methods for measuring success will include the total number of active dental referrals.

**Outcomes/Results:** At the start of this internship term, the number of ongoing or active dental referrals was between 120 to 140 referrals. Two months since the beginning of this internship term, referrals are reduced to 60-80 active referrals. The total number of active referrals embodies a smaller population of the overall refugee, migrant, and asylum-seeking population in the greater Philadelphia area gaining access to dental health interventions.

**Evaluation/Conclusion:** Evaluation for success for the project is assessed on the reduced number of active dental referrals because this action suggests clients feel comfortable navigating dental healthcare independently. Additionally, asking the clients follow-up questions about the quality of care they receive and other confounding variables that affected the overall experience of accessing dental care is valuable information for improving the health access team’s process, as it allows the team to implement adjustments that increase the quality of services provided to clients, in turn, promoting better health outcomes in the refugee, migrant, and asylum-seeking population in the greater Philadelphia area.
Internship Abstract

Title: MCRHC Lead Exposure Public Outreach Assessment

Name: Isagemni Inofinada

Preceptors:
Direct Supervisor: David Henry, Health Officer
Project Supervisor: Dominick Astino, Senior REHS, Lead Inspector/Risk Assessor

Agency: Monmouth County Regional Health Commission #1

Purpose: To research and evaluate a proposal for conducting lead inspections among higher-risk populations living in apartments and multi-family dwellings within Monmouth County.

Significance: The World Health Organization estimated that lead exposure accounted for 900,000 deaths worldwide in 2019. Generally, it’s difficult to gauge an exact death toll for lead poisoning due to the long-term damage in adults, including increased risk of high blood pressure and neurological damage. The CDC lists children's ( < 72 months) confirmed blood lead levels (BLL) by NJ counties from 2017 and 1.9% of all Monmouth County children had a BLL ≥ 5 µg/dL. For reference, the median blood lead level in children ages 1 to 5 years in 2013–2016 was 0.7 µg/dL, which means 132 children in Monmouth County have a 614.2% increase in BLLs compared to the national average. Chapter 182 is an act concerning certain lead-based paint hazards, and residential rental property, that will be passed in July of 2022; MCRHC continues to establish a lead-based paint hazard program, based on the research found.

Method/Approach: In order to create an approach there needs to be an understanding or assessment of where high-risk areas are so that the population can be made aware of the life-threatening effects before they occur. Step 1 is to identify lead hazards and the stemming problems that create elevated blood levels, such as apartments and homes constructed before 1978. Step 2 is to get lead inspectors out in the field with lead meters to assess the magnitude of lead in homes. Step 3 is to mitigate nervous system and brain damage in children under 6y/o by having PH Nurses and community representatives advocating for parents and tenants to have lead properly removed or treat lead-contaminated areas.

Outcomes/Results: It was determined that out of the 63,274 residential homes in Monmouth County Regionals jurisdiction, 57% had the potential to be contaminated with lead, with them being built before 1978. Finding areas that have been contaminated with lead-based paint would correlate with socioeconomic status in that specific community. Children living in high socioeconomic status would most likely have lower lead levels compared to a child living in lower socioeconomic status. Benefit Analysis: The cost of treating a special needs child into adulthood, such as schools providing special educational resources is much greater than the cost of a lead exposure program and proper professional preventative treatment or remediation options.

Evaluation/Conclusion: The MCRHC is attempting to create a lead remediation proposal to have the ability to conduct lead testing and remediation in-house, without the need for 3rd party services. Chapter 182 became effective in July and the State has not given an ‘instruction manual’ on how to approach lead remediation, which led to MCRHC taking the initiative to lessen elevated blood lead levels in their jurisdiction, regardless of socioeconomic status. This project should be relooked at for relevancy and any potential changes/updates needed when the law is official in July 2022.
Title: Community based interventions to help decrease the maternal and infant mortality rate in developing countries

Name: Ridda Insar

Preceptors: Dr. Gloria Bauchman and Dr. Hutchinson

Agency: Robert Wood Barnabas Medical School

Purpose: The purpose of this project is to explore more healthcare options that could ultimately lead to better outcomes for new mothers and their children in third world countries where healthcare is not given directly. Educational interventions can improve the outcomes of healthier children and mothers in third world countries.

Significance: Lack of education and healthcare in third world countries puts new mothers and newborn babies at risk. Mothers are not given the chance to properly care for their offspring and basic medical attention is also not readily available to them. In 2008, more than 300,000 women died during pregnancy or childbirth in third world countries (Montagu., et al, 2011). The injuries that caused these 300,000 deaths could’ve simply been avoided if education and access to healthcare was provided. Many women in third world countries undergo at-home births which are unsafe when medical professionals are not available at hand. Research shows that in 2018 there were 5.3 million deaths of children under the age of five; about 47% of those deaths were newborns. Mothers and children that end up surviving are thrown into a cycle of poverty which only harms both individuals physically, mentally, and emotionally in the long run.

Method/Approach: In order to control the rate of unsafe pregnancies and childbirth in third world countries it is necessary to create interventions where healthcare providers are available to guide and educate these women. Data collection can better help with this process. When families are given medical attention as well as professional attention they are most likely willing to follow the advice of healthcare workers. In third world countries it is common to have kids even when families are unable to provide for their children ultimately leading to a cycle of poverty.

Outcomes/Results: Donations and providing professional help has shown to help expecting mothers. Clinics and housewives that can help with at home births can also decrease the number of deaths of mothers in developing countries. Between 1990 and 2015, the global mortality rate for children under age five years dropped by 53 percent, from 90.6 deaths per 1,000 live births in 1990 to 42.5 in 2015 (Liu et al., 2016). Community based interventions help the community grow together and protect newborns from being thrown into a cycle of poverty as well as guide new mothers. In 2003, Ethiopia trained thousands of community-based health extension workers to focus on maternal, newborn, and child health (Medhanyie et al., 2012).

Evaluation/Conclusion: Evaluating the number of deaths in third world countries after community based interventions have been made can show if the goal is ultimately being achieved. The community based intervention program can lead women in third world countries to undergo treatment, diagnosis, and referral. A continuum of care can be provided to these women where they are offered help and educated on pregnancy and birth.
Internship Abstract

Title: Accreditation from the ADA as Following DSMES Standards of Quality: Standard 2

Name: Sharileen Javines

Preceptors: Ayana Hamilton, MA, MSW, CCLS and Lauren Galifi, RD, CDES

Agency: Children’s Specialized Hospital - New Brunswick, NJ

Purpose: To extract data within Children’s Specialized Hospital’s (CSH) data collection system, REDCap, the Electronic Medical Records (EMR) system, MediTech, and the patient information system, Salesforce, in order to measure quality of care, population served, and ability to access resources within the Chronic Illness Management Program (CIMP) according to the American Diabetes Association’s (ADA) newly released 2022 Diabetes Self-Management Education and Support (DSMES) Standards.

Significance: Approximately 37.3 million people in the United States have diabetes and 96 million people are at an increased risk of developing Type 2 Diabetes (CDC, 2022). More than 122 million Americans are at risk for developing chronic conditions such as hyperglycemia which is becoming increasingly prevalent in children and adolescents (ADA, 2022). The mission of the CIMP is “to provide the children with the best tools to effectively manage their illness, maximize their quality of life, and achieve their family-centered goals of care” (Hamilton, 2022). The CIMP offers a comprehensive, multidisciplinary 4-week inpatient program and outpatient services that is unparalleled within the tri-state area. By following the ADA’s standardized DSMES guidelines, CSH is able to ensure individualized care across: psychology, physical therapy, occupational therapy, recreational therapy, child life, medication and disease-specific education, nutritional counseling, and most of all, ensure quality care.

Method/Approach: A collection of patient data from REDCap, MediTech, and Salesforce was pulled into an excel report. This report of patient data from October 2021 to April 2022, quantified the demographics of the CIMP by measuring the race of the population, diagnosis of the patients, treatments currently used, needs of the population, and ways CSH is able to serve patients who experience barriers to care. Using the data collected and the ADA’s Standard 2 rubric, the diabetes education specialist can document that CIMP’s resources, design, and delivery methods align with the target population’s needs.

Outcomes/Results: Of the nineteen patients seen in the past six months, the Standard 2 report indicates that the CIMP, serves the target population and provides many opportunities for educational success. More specifically, 95% of those nineteen patients are 19 years or less in age, 68% have Type 1 Diabetes, 26% have Type 2 Diabetes, 32% are on Individualized Education Plans (IEPs), 58% are technically savvy, and 53% are under Medicaid Insurance. With 100% of the patients benefiting from CIMP’s physical facility, the patients are able to use DSMES tools to incorporate what was learned throughout their 4-week inpatient stay routinely and are followed-up with at 3, 6, and 12-month post-discharge. The data collected shows the CIMP’s population served and alignment with Standard 2.

Evaluation/Conclusion: Working closely with the diabetes education specialist to receive accreditation as a nationally recognized education program for complying to DSMES Standards benefits the hospital and the patient in a multitude of ways. The hospital can ensure quality in accordance with standardized expectations, be reimbursed for their services, and also receive further referrals. This is especially important in improving the patient experience, ensuring that the delivery of care is maintained, and being able to continuously complete the mission of serving the diabetes community and its unique needs.
Title: Community Outreach & Assistance for Cancer Screening in Korean American Population

Name: Euikyeom (Tristan) Jeong

Preceptors: Dara Herman, Research and Data Evaluation Manager

Agency: Englewood Health

Purpose: To lower the barrier to access preventive screening methods for lung and colorectal cancer (CRC) for the Korean American (KA) population.

Significance: The KA population has a high incidence and prevalence of colorectal cancer and lung cancer- “Colorectal cancer (CRC) is the second most common cancer among Korean Americans, after lung cancer for Korean men…” (Ma et al., 2019). The high incidence and prevalence of CRC in the population could be attributed to socioeconomic reasons, access to healthcare, and demographics/cultural reasons, such as the traditional Korean diet. The biggest barriers to screening for the KA population are the “…lack of insurance, language inefficiency…” (Ma et al., 2019). By assisting the KA population by offering free cancer screening and assisting with language, more KA men and women are expected to participate in the cancer screening program.

Method/Approach: The Korean Center (KC) team used various methods to reach out to the KA population. The methods included (1) using ‘KakaoTalk’ messengers, (2) newspaper advertisements for the older KA population, (3) translating hospital brochures and smoking cessation booklets into Korean, and (4) creating YouTube videos regarding smoking cessation. For the participants, the KC team dispersed the Fecal Immunochemical Test (FIT) kits and smoking cessation booklet via mail, with collaboration from ScreenNJ. The KC team added free colonoscopy sessions for those with abnormal lab results from the FIT kit, with the uninsured population at highest priority. For the KA population with a history of smoking or status of currently smoking, the KC team offered low-dose computed tomography (LDCT). The KC team sent out 35 FIT kits on 3/31/22 with the return date of 4/11/22. Two weeks were given to return the samples to the hospital, with follow-up calls from the KC team throughout the period.

Outcomes/Results: The project consisted of assisting the KC team with community outreach, such as assisting with operations, translating for Korean patients, and making follow-up phone calls. There are 39 participants who signed up for either the FIT kit, smoking cessation/LDCT or both. From the sample size cohort (n=39), 27 participants (69%) picked up the phone, with 25 participants (64%) who have either received the FIT kit or returned it to the hospital already, as a result of the follow-up phone calls. Of the two participants (5%) who did not receive the FIT kit, 1 participant did not provide an address, while 1 participant did not receive the kit for unknown reasons; the KC team obtained the address for the participant. Two participants (5%) dropped out of the program to get examinations in South Korea. Twelve participants (31%) did not pick up the phone.

Evaluation/Conclusion: The program’s success was measured by the number of participants, since the project’s intention is to increase KA participation in cancer screening programs. The sample size cohort (n=39) is limited to the first round of sign-ups; there will be more rounds to receive more KA participants. The continuing project will be evaluated and monitored every month for success with follow-up phone calls. This project had limitations of: (1) the KC team having other hospital duties, resulting in limited time spent on this project and (2) having limited KC team staffing, resulting in the ability to manage small sample cohorts, one round at a time.
Internship Abstract

Title: Quality Improvement Design Addressing Nurse’s Anxiety Through Coloring

Name: Andrew Joe

Preceptors: Two Researchers

Agency: Large healthcare system in Northern New Jersey

Purpose: To assess the effects of a Mandala color mural as an anxiety reducing intervention, improving resilience in nurses during a pandemic.

Significance: The hospital setting is an anxiety-inducing environment, especially for nurses. In the hospital acute care setting, over 92% of nurses experience anxiety on a moderate to a high level. This can in turn cause nurses to experience neuronal atrophy and difficulty in performing their daily duties (Maguire et al., 2020). Nursing anxiety has only increased since the beginning of the Covid-19 pandemic. Nurses are quotidianly exposed to Covid-19, living with the fear of not knowing if they have been infected. (Labrague & De los Santos, 2022). Nurses have to worry about both contracting the disease and possibly spreading it to others (Labrague & De los Santos, 2022). Untreated anxiety can lead to decreased work performance and job satisfaction. Nurse managers have the responsibility of helping their frontline nurses during this anxiety-inducing time, as organizational support will help reduce anxiety greatly (Labrague & De los Santos, 2022). One intervention to the anxiety that is mentioned in much-published literature, is coloring therapy. The study aims to use an innovative coloring method to alleviate nursing anxiety by giving nurses a meditative space to escape the chaotic work environment.

Method/Approach: A pilot study was conducted at a large healthcare system in Northern New Jersey. The system delegated six sites to implement the study. At each site, a Mandala coloring mural was hung in a chosen unit. The murals were only intended for healthcare system nurses. Pre- and post-surveys were available via a QR code placed next to the murals. The surveys consisted of three questions. Anxiety levels were measured through a visual analog scale for anxiety (VAS-A). VAS-A is a reliable self-rating tool that assesses state anxiety before and after an intervention (Abend et al., 2014). Red Cap was used as the data repository and Mini Tab was used to analyze the data. The study duration was one month.

Outcomes/Results: Of the sample size cohort (n=51), 46 nurses filled out the pre-survey while 51 nurses filled out the post-survey. The anxiety of the nurses in the pre-anxiety survey (M=55.59, SD=22.50) significantly reduced after interacting with the color mural (M=27.94, SD=19.59). An independent t-test was used as the groups were not matched exactly. The findings from the study proved to be statistically significant, proving that the results did not occur by chance (p<0.001).

Evaluation/Conclusion: The Mandala murals were of great success in reducing anxiety levels in nurses across many different units. The mural completions were posted on the nurses’ communication system, increasing the number of inquiries from different units regarding the steps needed to adopt this intervention. The Mandala murals were used to introduce an innovative method of reducing anxiety in nurses in the acute clinical care setting. As many nurses look to alleviate their everyday anxiety, the need for interventions like the colorful mural is in demand. Further comparative research with other interventions may prove worthwhile in helping nurses today.
Internship Abstract

Title: Investigating Social Determinants of Health among Underserved Populations

Name: Amanda Johnson

Preceptors: Suzanne Cornell, Director of Strategic Partnerships and Engagement

Agency: NJ YMCA State Alliance- Trenton, NJ

Purpose: To investigate social determinants of health in underserved populations that prevent access to the YMCA Lifestyle Change Programs and propose potential solutions to improving access and retention.

Significance: Over 88 million American adults have prediabetes and more than 8 in 10 adults are unaware that they have it. Without treatment, prediabetes will turn into diabetes and increase the risk of stroke and heart disease, which are two of the leading causes of death. Studies have shown that lifestyle change programs can reduce the risk of type 2 diabetes by 57% for those who are at high risk. Rural New Jersey counties (Cumberland & Salem) have the highest rates of diabetes when compared to other parts of New Jersey. This can be attributed to their lack of access to healthcare, transportation, cultural barriers, and the digital divide. These factors lower the chances of someone being screened for prediabetes and referred to one of the YMCA healthy lifestyle change programs. Through an effective marketing campaign, partnership with health networks, and implementation of community screening centers, access to the YMCA programs can be improved which will result in getting people the care they need.

Method/Approach: In order to improve access and build awareness of the Diabetes Prevention program the facility implemented an online bilingual (Spanish) Diabetes marketing campaign, partnered with physician offices in the NJ area, and provided in-person community wellness days for employers at local YMCAs. Through the marketing campaign we have reached over 33,000 people and have received over 180 Facebook leads that specify who is interested in the program. Additionally, the YMCA partnered with three physician offices in the South Jersey region and held two employee wellness days. During these events and programs, data was gathered to determine which marketing method was most effective in recruiting and enrolling patients into the Diabetes Prevention Program.

Outcomes/Results: Out of the 180 Facebook leads that were received through the online marketing campaign, there were about 40 people who were interested in joining the program. Each individual was provided with the necessary steps to get enrolled into a class. With the three physician offices the program received 12 referrals and placed the individuals at a local Y that suited their needs. After providing two employee wellness days and serving over 70 employees and local community members, 25 individuals were pre-screened with an A1C within the prediabetes range of 5.4% to 6.7%. Those 25 individuals were given the necessary steps to enroll in the program and supplied with healthy lifestyle tips.

Evaluation/Conclusion: To conclude it was found that the online bilingual Diabetes marketing campaign was the most effective tool in reaching the most people possible and increasing the rate of enrollment. For the other individuals who may not be active on social media, they were able to be reached through the partnership with the physician offices in South Jersey and the in-person community wellness days that provided screening services to employees and members of the community. The bilingual online marketing campaign closed the language barrier gap, while the in-person community wellness days gave those who were not online the opportunity to get screened and enrolled in a program that will provide them the help they need.
Internship Abstract

Title: ACS Cancer Action Network Lobby Day 2022

Name: Siddhi Joshi

Preceptors: Lindsay Nicholson, Cancer Control Strategic Partnerships Manager

Agency: American Cancer Society

Purpose: Strengthen outreach strategies and plan for the Cancer Action Network Lobby Day; an event that requires the presence of legislators to approve of the Failfirst/Step Therapy Bill.

Significance: Access to clinical treatments, medications, and therapy is fundamental to decreasing suffering and death from cancer and other chronic illnesses. However, too many patients face out-of-date insurance policies that hinders access to treatments that address, manage, and prevent the condition. Fail First, also known as step therapy, is a method employed by insurers in an ineffective attempt to manage costs. It stops patients from receiving the treatment prescribed by their doctor by forcing them to attempt and ultimately fail one or more alternative medications. Committing to legislation that would guarantee health care providers have the final say in what medication is best for their patients, and sharing the stories of patients who have faced these challenges and barriers, will amplify voices to our legislators and encourage stricter protection of patients from these unnecessary hardships. This bill enforces the quality of life by barring third party sources (i.e health insurance) from disapproving initial treatment for patient diagnosis given by providers.

Method/Approach: Analyzed bill text for Failfirst/Step Therapy Bill using various Cancer Action Network resources via the MA Grassroots team. Reviewed legislative contact information to compile social media handles of 50 participating House Representatives for participants to outreach post events. Reviewed data with Strategic Partnerships and began outreach to local organizations in and around colleges at Tufts University SOM, Umass Dartmouth, and Umass Amherst for constituent recruitment among campus groups and participation for the virtual event. Utilized social media to promote Lobby Day event as well as continue constituent recruitment among campus groups; publicized #MACancerLobbyDay, #KnowYourPlan. Attended and participated in MA Lobby Day training events to increase publicity for the event. Participated in follow up emails with lawmakers, social media debriefs and grassroots management debrief.

Outcomes/Results: 70 attendees for the virtual Kick-Off and over 50 participants for the legislator meetings. Over 40 meetings were held with legislators. The purpose of Cancer Action Lobby Day is to engage society in transforming quality of care by supporting the increased funding for the Massachusetts Tobacco Cessation and Prevention Program to $8.25 million and restore it to its own line item (line item 4590-0300). In addition, increase in patient safety, advocacy, and appropriate patient protections by supporting consumer access to the Health care plan prescription drug information before a plan is purchased; including cost to the patient in real dollars and drugs covered.

Evaluation/Conclusion: Failfirst Bill was successfully approved in the last legislative session from the Senate. The House budget for the 2022-2023 fiscal year has been sponsored/co-sponsored by representatives for act S.756, an act relative to Step Therapy and patient safety sponsored by Senator Julian Cyr. The next step is to get the Senate to pass the amendments and increase budget priorities through transparency with legislators. And finally, support H.1311: An act empowering healthcare consumers sponsored by Senator Brendon Crighton to influence change and impact the future of cancer.
**Title:** Lead Notification Program Performance Assessment  

**Name:** Shahara Kabir  

**Preceptors:** Direct Supervisor: Peter Skeels, Manager of Rutgers Environmental Health and Safety  
Project Supervisor: Rosa Krampert, Health and Safety Specialist  

**Agency:** Rutgers Environmental, Health, and Safety (REHS)  

**Purpose:** To analyze the rate of compliance for the lead notification program at Rutgers University and propose interventions to improve adherence to guidelines.  

**Significance:** Lead poisoning symptoms in children include headaches, muscle/joint weakness, fatigue, behavioral problems, and loss of appetite. Lead-based paint was utilized in construction projects before the government issued a ban on consumer use in 1978. The Environmental Protection Agency (EPA) issued a regulation in 1996 that requires property owners to disclose to lessees, prior to signing their lease, of lead-based paint and/or lead-based paint hazards in housing built before 1978. The intent of the regulation is to reduce childhood exposure to lead, thereby reducing lead poisoning cases in children less than 6 years of age. The rule applies to housing that is likely to have children present, including Rutgers apartments, excluding dorms. Interventions will address gaps to improve the performance of the program.  

**Method/Approach:** A retrospective review by the health and safety specialist staff was completed to assess the compliance of the lead notification program. Data for 282 buildings were exported to a spreadsheet, and of those, 32 were built before 1978 and are required to complete the disclosure form for lead-based paint and/or lead-based paint hazards. The disclosure forms were categorized to address 3 types of results 1) no reports or records pertaining to lead-based paint and/or lead-based paint hazards 2) records of inconclusive lead-based paint results 3) records of positive lead-based paint results.  

**Outcomes/Results:** Of the sample size cohort (n=32), 18 buildings (56%) had no records indicating the presence of lead-based paint, two buildings (6%) had inconclusive results, and 12 buildings (38%) had positive results. Of the 18 buildings that had no reports, 11 (61%) completed the disclosure form. Of the two buildings that had inconclusive lead-based paint results, none (0%) completed the disclosure form. Of the 12 buildings with positive lead-based paint results, 3 (25%) completed the disclosure form.  

**Evaluation/Conclusion:** More than half (n=32, 56%) of the buildings from the sample did not complete the disclosure form for lead-based paint and/or lead-based paint hazards. Yearly audits, e-mail reminders, and collaboration from department administrators will serve as effective strategies to (a) enhance initial and long-term adherence to the notification program procedures and, (b) improve lead-based paint and/or lead-based paint hazard disclosure form compliance. Ongoing monitoring of lead-based paint and/or lead-based paint hazard compliance within the university will ensure improvements for the future.
Title: Assisting the needs for the *Voices Against Violence Gala*

Name: Tabreez Kara

Preceptors: Sashay Turner, Communications and Development Manager

Agency: Day One- New York

**Purpose:** To evaluate the organizational needs and physical needs for the upcoming *Voices Against Violence Gala* in April and in New York City.

**Significance:** Day One is a nonprofit that is continuously raising money for various programs that educate the youth on intimate partner violence and show them what healthy and safe love looks like. The CDC estimated 26% of women and 15% of men experience some form of dating abuse before the age of 18. This is a concern that needs to be addressed through the programs Day One offers. In order to achieve this, meetings for funding need to be scheduled with New York City Council Members and research on any previous funding allocation and the work that has been accomplished for those services needs to be summarized and prepared for those meetings. Auction items for the Gala’s silent auction also need to be secured so that funding goes towards more programs and awareness on social media.

**Method/Approach:** The method to tackle these problems was a joint effort of continuous outreach to new and previous donors and maintaining organized with the items and services we already have. This was primarily measured by the number of items that could be secured for the Gala, with our goal being 100 items. 100 items came from the previous year’s Gala which had just under 100 items for their silent auction. On the other side of this is also the upcoming meetings with various members of New York City Council. This included reaching out to newly elected officials and introducing Day One- New York to them. These meetings were a successful start to gaining recognition from local city officials and possibly acquiring funding for the organization.

**Outcomes/Results:** The outcome from these methods are measured primarily qualitatively because fewer donors could have had a larger impact on Day One- New York. Eventually the goal of securing 100 items or more for the Gala was successfully met and consisted of a broad range of high quality and thoughtful items like a weekend stay in Delaware, guest passes to a local spa, and various gift certificates to NYC restaurants. The Gala will be able to raise a significant amount of money from them and that will be used to find prevention programs and support systems for youth affected by domestic violence. The New York City Council Members were also reached and at least 25% of elected officials will now be able to recognize Day One- New York and possibly allocate city funding for the programs they are pioneering.

**Evaluation/Conclusion:** The goal of surpassing the previous year’s Gala donation total was successfully completed and the range of items for the silent auction will hypothetically raise more money than the previous year’s Gala. This will positively benefit the programs Day One- New York runs and hopefully add additional programs in more schools that focus on preventing dating abuse and teaching young people what and how a healthy relationship looks like. The measurement for success was to increase the amount of donations and items from the previous year’s Gala and this is a helpful unit, but will eventually need to be changed by increasing the size of the Gala or the areas in which Day One- New York works in. Currently the organization only works in New York City, but has the potential to be taken to a nationwide organization with community led initiatives.
Internship Abstract

Title: Improve Efficiency in New Jersey EMT Initial Certification

Name: Robert Karch

Preceptors: Candace Gardner, New Jersey Office of Emergency Medical Services Program Manager

Agency: New Jersey Department of Health - NJOEMS

Purpose: To decrease the delay in providing emergency medical technician (EMT) applicants with EMS certifications, specifically regarding initial certification.

Significance: The State of New Jersey has had, since the early 1980s, tens of thousands of EMTs. Currently, there are around 35,000 certified New Jersey EMTs. The stakeholders in EMS in NJ, at all levels, agree that there is a profound shortage of EMTs in the labor force; while addressing the root causes of this issue, namely salary and work environment, have proven to be exceptionally difficult hurdles to overcome, it is within the capabilities of the Office of Emergency Medical Services to address the matter by ensuring timely approval of initial EMT certifications. The goal is to refine that process, using statistical analysis of what historical data we have available to locate shortcomings.

Method/Approach: A retrospective review of data for NJ EMT initial certification was undertaken, to determine the elapsed time between initial contact with NJOEMS and the completion of the certification process. Data from 4/1/2021 through 3/24/2022 were used: 550 exam verifications were found and initially 206 included, 878 exam result validations were found, and 659 initially included. 31 verifications and 9 validations were noted as unsuccessful, usually for technological or digital issues, and were not included. Additional exclusions were for exams other than EMT initial examination verifications and validations. Of the included EMT initial examination applicants, only 23 individuals could be positively identified as having been verified as eligible to take the National Registry of Emergency Medical Technicians’ written examination and then having those results validated by NJOEMS and not by some other entity, and thus the data could be considered with greater confidence in the accuracy of dates of exam verification and results validation.

Outcomes/Results: The longest times from the completion of an initial EMT program to contacting NJOEMS for verification were 13 and 17 months and were considered outliers. 18 of the 23 applicants reviewed (78%) contacted NJOEMS for verification in three months or less, with a mode of less than one month from course completion to verification (n=7, 30%) and an average of 2 months. Three out of five (n=13, 60%) applicants contacted NJOEMS after less than three months. After verification, the longest time that elapsed prior to an applicant contacting NJOEMS to validate examination results was 6 months (9% of applicants), with a mode time of 2 months (30% of applicants) and an average of 3 months, with almost two-thirds (n=15, 65%) of applicants contacting NJOEMS in less than four months.

Evaluation/Conclusion: The numbers above demonstrate that an average new EMT will take around 5 months after completion of their initial EMT class to contact NJOEMS to validate their national test results and receive an initial EMT certification. However, certification in less than one month is clearly achievable, so the matter must not be a technological limitation but instead some human issue. Communicating the need to students and training staff for EMT students to contact NJOEMS for test-related issues must be made clearly, especially for validating a passed examination. Continuing this data gathering and observation going forward can ensure the effectiveness of this communication.
Internship Abstract

Title: Challenges in Transition with Epic Software from a Patient Perspective

Name: Amirah Khan

Preceptors:
Direct Supervisor: Genesis Rivera-Pomales, Patient Access Department
Project Supervisor: Mary Kelso, Regional Director of Patient Access Department

Agency: Robert Wood Johnson University Hospital

Purpose: To research and analyze the benefits and utilization of the MyChart patient portal through the launch and transition to the new healthcare software Epic in the process of change management.

Significance: Epic is a new healthcare software system used to help hospitals and patients manage and access medical information more conveniently. The MyChart patient portal allows the patient to see medications, test results, appointments, bills, request medication renewals, arrange for online follow-ups or in person appointments, communicate with their doctor through secure messaging, and check in for their in-person appointments online. The software also allows for interoperability between hospitals. As RWJUH inherits Epic as their primary healthcare information management software, RWJUH wanted to assess the utilization and integration of the new system from a patient perspective.

Method/Approach: Multiple Epic training sessions were attended to become familiar with the software. Two interviews were conducted with people from other regional hospitals and employees from corporate with extensive experience using Epic and MyChart. Two other healthcare facilities currently using or pursuing to use Epic and MyChart had also been visited to evaluate the registration process. The specific registration process using kiosks provided at RWJ-Somerset had been observed, allowing for a swift registry. Several patients were interviewed at the hospital to gain insight regarding their experience using MyChart.

Outcomes/Results: With the launch of Epic and MyChart within surrounding RWJ hospitals, there were a total of 35% of patients who activated and used MyChart. Throughout the 6 month period between Oct. 2021 to Mar. 2022 there was a peak of 12% of appointments scheduled online using MyChart and 9.1% of patients used the eCheck-in option before their appointment. Around 38.7% of self-pay payments were made and 80% of patients have used paperless statements with MyChart since June of 2021. Patients have stated their appreciation for the ease of sending messages to their doctor, requesting an appointment or refill, and pre-appointment check-in processes. Complaints included issues with getting used to the system and with the inconsistencies in the use of MyChart across different RWJBH practices.

Evaluation/Conclusion: Being able to experience the effects of the transition first hand allowed for a wider perspective on the difficulties and simplicities of Epic, especially with MyChart. After multiple consultations with staff and patients with a considerable amount of experience with Epic, there are only benefits to the transition. Challenges include patients being technologically challenged where there is hesitancy to succumb to the use of a new system yet to integrate throughout all RWJBH practices.
**Title:** Resource Guides for Cancer Patients and Underserved Populations

**Name:** Amy Khan

**Preceptors:** Megan Smith, Patient Outreach Manager

**Agency:** Leukemia and Lymphoma Society

**Purpose:** To create resource guides for blood cancer patients and underserved populations in the Eastern PA and Delaware region.

**Significance:** There have been slight advances in cancer resource centers and treatment options for cancer patients in the previous and present years. However, even though these avenues exist, poorer geographical areas where certain types of populations live are not able to access these resources. Additionally, due to their lower socioeconomic status, these populations are also not made aware of resources that might be available to them. The purpose of this project is to create a guide for issues relating to cancer treatment options, financial assistance options, mentoring, hospital locations and support centers that can be distributed to these populations. By creating this guide, a cancer patient is able to utilize the information for any assistance that they may need, including important information that they might not have received due to their geographic location. The purpose of LLS is to relay this type of information to the patient and by creating this guide, it is much easier to give patient’s this information. This project contributes to the solution by making sure cancer patients in underserved areas are given access to the help that they need.

**Method/Approach:** To address the issues concerning underserved populations, research was done to showcase how many underserved populations are affected by cancer. With the assistance of the internship supervisor, current data and research on African Americans and Myeloma was available to use for the project. Data and statistics about how prevalent myeloma is among the African American population was reviewed and used to develop the guide. Since the resource guide is meant for the underserved population as a whole, other populations were also researched. Research was completed to include the Hispanic population, women and breast cancer, veterans diagnosed with cancer and the LGBTQIA population who are diagnosed with cancer.

**Outcomes/Results:** The results for this resource guide focused on the Eastern PA and Delaware region and about ten to twenty cancer communities or resources were found for each region. There were also two to three services that were specifically targeted for each underserved population. As of right now, this is still a work in progress and the ten to twenty service mark has not been targeted. Coupled with this, it is increasingly difficult to find community resources that do cater to these specific populations, so much more research and time is needed in order to hit the intended target populations.

**Evaluation/Conclusion:** To determine the effectiveness of the resource guide, the internship supervisor will utilize the finished guide by distributing it to the patients of this underserved population. A record will be kept on how many patients utilize the resource guides and whether it was helpful to them or not helpful. The resource guide will also be utilized among the entire Leukemia and Lymphoma society team, volunteers and interns. The same record will be kept concerning the effectiveness of the resource guide. Follow up calls to patients will also be made to personally ask the patients whether the resource guide was helpful.
Internship Abstract

Title: Sales Analyst and Marketing Intern

Name: Hamida Khatun

Preceptors: Direct Supervisor: MD Abdul Kuddus

Agency: IFix and Repair

Purpose: To collect and study the sales data and analyze current market trends to improve sales and promote products and services to the customers focusing on their preferences.

Significance: IFix and Repair is a technology repair company with more than 100 locations around the United States. More than 300 qualified employees work in the company. The cellphone repair industry has experienced significant growth due to the pandemic; people rely more on cellphone on a daily basis. In the United States, about 30% of Americans have their phone cracks and are damaged by falling from their pocket, dropped while working, dropped by kids, spilled liquid on the phone, etc. The significance of this role is to assist the customers with their needs, promote products to the customers, monitor and record daily sales and repairs, analyze the sales data, and develop new sales strategies to improve sales. This helps build new techniques and adds significant economic value to the company.

Method/Approach: The responsibilities included in this role are to monitor and collect daily sales data, develop new strategies, and create a weekly presentation for the team to set new sales goals for upcoming weeks. The steps involved in this process are collecting all sales records, including online orders through phone and email from the customers, analyzing collected data to develop a new sales strategy focusing on market trends, creating a presentation based on the sales record, and come with a unique approach to discuss with the team and sets goals to improve the sales for the upcoming weeks. The methods used in this role are finance, strategic planning, management, performance, and revenue.

Outcomes/Results: The data shows that this location of the company’s revenue increased in three months from around $90,000 (February to April 2021) to 114,000 (February to April 2022). Compared to last year's sales data, the profit increased from 25% to 35% each month. The sales reports of the project period and previous sales reports show the company’s earnings increased by performing based on the planning methods. By observing the data, the supervisor will be able to determine what needs to develop to make the company more profitable. The supervisor will be able to figure out which areas the company made more sales in at a particular time and lead the employees to perform based on it. By the end of the project, the company will be able to keep following the strategy and planning technique that evolved to improve sales.

Evaluation/Conclusion: This project aims to analyze the sales data and establish better planning to make the business more profitable. Comparing the sales reports at the progress made using the techniques and strategy will help evaluate the project to know how the methods work to improve. Identifying the sales report and performance of the project period and the previous statements and comparing the gaps will measure the project's success.
Title: Feelings of Caution and Isolation among Young Adults Coping with Racial Stressors and Experiencing Psychosis

Name: Aysha Khawaja

Preceptors: Ana Stefancic, Ph.D., Associate Research Scientist

Agency: Columbia University, Department of Psychiatry

Purpose: To explore feelings of caution and isolation among young adults who are coping with racial stressors and experiencing psychosis and identify how mental health providers can address these concerns.

Significance: Racism has a profound negative impact on the mental health of young adults that belong to historically minoritized populations. Young adults who experience episodes of psychosis are at a disadvantage as experiences of racism can worsen symptoms and exacerbate the potential for social isolation. There is a need to identify the impact of everyday racial stressors in the lives of young adults receiving early intervention services for psychosis so that they can be better supported. By acknowledging and addressing the unique experiences that people of color have to endure and the effect they can have on an individual's mental health, providers can help young adults navigate racial stressors and symptoms.

Method/Approach: Semi-structured qualitative interviews were conducted with 14 OnTrackNY participants (i.e., clients receiving early intervention services for psychosis) who were from minoritized racial groups and 12 family members. Interviews explored experiences of racism and how individuals cope and were recorded and transcribed. A thematic analysis approach was used wherein transcripts were coded and code reports were reviewed, analyzed, and grouped along key topics (e.g., negative impact, caution, isolation) to identify concepts and themes emerging from interviews.

Outcomes/Results: OnTrackNY participants and family members described a range of experiences with racism and discrimination in settings such as school, the workplace, and out in public. These experiences led many individuals to feel “out of place,” to become more cautious, and to cope by limiting certain activities or social interactions. Participants reported not participating in certain activities in school or seeking out health services from specific neighborhoods out of fear of feeling misplaced, misunderstood, or mistreated based on past experiences. Participants also emphasized the lack of diversity in work or school settings that left them feeling isolated. Other participants mentioned limiting interactions with the mental health system and law enforcement, feeling that their lives could be endangered, which caused them to be cautious: “If we increase the amount of interactions, we know the potential for [Black males] being killed increases; that fear is underneath and infuses every way that we interact with the system to get our brothers the help that they need.”

Evaluation/Conclusion: These findings highlight how experiences of racism have instilled fear within many participants, causing them to avoid certain interactions and settings as a way of coping and limiting possible exposure. To better support individuals with psychosis from minoritized racial groups, providers should have more active conversations on racism and the experiences that participants have gone through. This includes helping individuals to address these feelings and navigating the emotions surrounding them, developing healthier coping methods, expanding social support, and utilizing providers from underrepresented communities to represent participants of OnTrackNY.
Title: Recruiter Intern, New York Metropolitan Area

Name: Adem Kilic

Preceptors: Jill Rowland

Agency: A+ Personnel

Purpose: To work with local businesses, corporations, and healthcare facilities in the New York Metropolitan area to locate and qualify candidates utilizing our database, job boards, and research skills to help companies find people as well as help people find companies.

Significance: The unemployment rate in the New York Metropolitan area for the past two years, due to Covid-19, has had a significant impact on employers. After looking at the seasonally adjusted unemployment rate of 12.0 percent in December 2020 to now a decrease of 8.8 percent in December 2021, although Covid-19 has changed the nature of the work environment, employees are still less inclined to return to work and many positions are requiring people to return to work in-person. A+ Personnel is contracted to work for employers who struggle with vast vacancies for critical positions to make businesses and healthcare facilities run effectively and efficiently. This project helps to combat issues businesses or healthcare facilities may come across to fill those much-needed positions and return to a somewhat pre-pandemic state of normalcy.

Method/Approach: To achieve the goal of fulfilling the current needs of health related businesses and healthcare facilities, the agency used a three step approach. The first step is by conducting a search through our existing database for potential candidates in each job order that our clients submit to us. The next step is to use a variety of job boards to look for candidates that are actively searching jobs and that meet the requirements of the clients, primarily using LinkedIn, Monster, and Indeed for our searches. After which we would then search for passive candidates that are not currently in the job market and research their contact information to further discuss the opportunity.

Outcomes/Results: From the months of January 2022 to April 2022, a total of 30 positions were addressed for job orders that varied from medical, technology, or business. Through the usage of job boards and the agency's database, roughly 3-4 candidates with qualified resumes were sourced per position, which was then moved to an interview stage prior to job acceptance. Of the 30 positions, 14 of these positions were filled and the other 16 positions are still in process. These job orders can take quite a bit of time as some positions are for non-profit agencies and scheduling interviews can be difficult if candidates aren’t available at the allotted times.

Evaluation/Conclusion: A+ Personnel’s work will always be ongoing with a constant influx of people looking for employment and employers looking for positions to fill. A+Personnel’sa work thus far has been making a productive difference in the New York Metropolitan Area by continuing to help employ hundreds of individuals after the mass employment vacancies created from the Covid-19 pandemic. There are still limitations to this as the company’s mission is to bridge the connection between the candidates and the employers by bringing them together, as it is ultimately up to the candidate and company if the deem each other a fit.
Title: PTSD in Women who Have Experienced a Miscarriage/Fetal Demise

Name: Rachel Kim

Preceptors: Dr. Gloria Bachmann, Dr. Allison Cabinian

Agency: Robert Wood Johnson Medical School - Women’s Health Institute

Purpose: To review the literature on post-traumatic stress disorder in women who have a miscarriage/stillbirth and identify areas of patient care that may need improvement.

Significance: Post-traumatic stress disorder (PTSD) is a consequence of experiencing extreme trauma, which arouses intense negative emotions in the individual involved. A miscarriage or stillbirth may fall under the category of a traumatic event, especially if parental bonding had occurred and if the patient was exposed to unpleasant sights such as blood or tissue (Engelhard et al., 2006). In the United States, miscarriages are experienced by approximately 10 to 20 percent of pregnant women who are aware of their pregnancy; one study found that 67.9 percent of their sample had PTSD after a miscarriage or perinatal loss (Daugirdaité et al., 2015). In addition to miscarriages, there are 2.5 million stillbirths worldwide, and 60 percent of a sample of women who had experienced a stillbirth met the criteria for PTSD (Westby et al., 2021). One of the Women’s Health Institute’s missions is to optimize the wellness of women on a national and global scale through its research. In order to improve the mental health outcomes of women who have experienced a miscarriage or stillbirth, it is crucial to research and review the literature that already exists on this topic while providing healthcare professionals and families with considerations for best-practice care.

Method/Approach: A literature review was conducted using peer-reviewed journal articles from databases such as Google Scholar and PubMed. The searches revolved around three general subtopics: PTSD in women who have a miscarriage/stillbirth, risk factors for PTSD after a miscarriage/stillbirth, and miscarriage/stillbirth care practices. After analyzing and selecting ten relevant articles, a comprehensive literature review was created to discuss the existing research on PTSD in women who have experienced a miscarriage/stillbirth and the improvements that can be made in caring for these patients.

Outcomes/Results: Eight journal articles discussed the development and prevalence of PTSD following a miscarriage or stillbirth. One of these studies found that within one sample of women who had a miscarriage, 25% had PTSD after one month (Engelhard et al., 2001). In contrast, a study of women who had a stillbirth showed that 11% had PTSD after two to four months and 8% after fourteen to sixteen months (Horsch et al., 2015). Four articles discussed risk factors for PTSD after a miscarriage/stillbirth, which can include trauma history, no prior pregnancies, income, age, gestational age, education, and neuroticism. One of these studies found that women who had Negative Cognitions about the Self and about the World following a stillbirth showed a higher number and frequency of PTSD symptoms (Horsch et al., 2015). Three articles discuss best practices for care and patients’ experiences with miscarriage management; perceived emotional support from either professionals or friends and family proved to be crucial for the recovery of patients after the loss of their baby (Horsch et al., 2015).

Evaluation/Conclusion: Developing PTSD after a miscarriage or stillbirth is not uncommon. However, the negative psychological impact of the traumatic event may be lessened over time through high levels of emotional support by health professionals, friends, and family. Thus, it is especially crucial for health professionals to show sensitivity towards these vulnerable patients following the loss of their babies.
Internship Abstract

Title: Promoting Health and Hygiene Through Community Outreach

Name: Anjelica Kiriakatos

Preceptors: Kelsey Lynch and John El-Maraghy, Co-Founders, Intern Advisors

Agency: Archangel Raphael’s Mission (ARM)

Purpose: To empower those in need and provide access to services that promote health and hygiene within the New Brunswick area.

Significance: As of 2020, there were approximately 9,663 men, women, and children experiencing homelessness across New Jersey. In Middlesex county alone, 629 people were considered homeless on any given night and 175 of those are identified as chronically homeless. The highest rates are seen in the city of New Brunswick. Many of these individuals do not have access to a meal or personal hygiene care services. Not only is a lack of hygiene risky to a person’s health but it also makes it difficult for an individual to sustain a job or develop relationships. Archangel Raphael’s Mission (ARM) is a nonprofit organization that is located at the United Methodist Church in downtown New Brunswick. This organization is dedicated to empowering the community by helping those in need and providing meals as well as access to services and resources designed to maintain personal hygiene.

Method/Approach: Between January 15 and April 30, information about ARM services was provided at dinner events at the United Methodist Church 1-2 times per week. One event was a fundraiser to raise money to help expand our mobile shower unit which took place on Saturday April 30, 2022. Approximately 15 volunteers were recruited to help at different times throughout the day between the hours of 10 a.m. to 4 p.m. This involved a marketing campaign using social media to get people interested in helping the organization’s cause between the dates of April 1st to the 30th. On the day of the fundraiser, a table was set up outside of the Rutgers’ College Avenue student center where baked goods were sold and participants donated money to play an activity. Informational pamphlets were also given out at this fundraiser to raise awareness about ARM and the services provided for those in need.

Outcomes/Results: Currently, as of May 1, 2022 our efforts include raising a little over $200 at a fundraising event created to help the homeless community of New Brunswick. In addition, approximately 100 informational pamphlets have been distributed to individuals educating people about community health outreach and ways they can get involved. This information also involves places, times, and dates where those in need can access various resources in terms of meals and personal hygiene services. An additional 15 volunteers were recruited to aid in our fundraising efforts throughout the day on Saturday April 30, 2022. Overall, in total another 20 volunteers were signed up throughout the semester to help with the organization’s daily dinner service at the United Methodist Church in New Brunswick which is run between the hours of 6 and 7 p.m.

Evaluation/Conclusion: The health and hygiene services that ARM provides for the community are basic essentials that should be available to all. In providing these resources, ARM is increasing preventative care efforts within the homeless community of New Brunswick. In providing individuals with hygiene and healthcare products or services, this reduces the spread of disease and infection. The dinner service also allows families who are worried about where their next meal will come from the assurance that they will be fed.
Internship Abstract

Title: Heart Disease and Hypertension Educational Modules

Name: Monaver Klenja

Preceptors: Vanessa Ingrid Farrell, MPH, MCHES, Founder and CEO

Agency: VI Health and Coaching, LLC

Purpose: To develop an educational curriculum consisting of seven modules that raise awareness for hypertension and heart disease in women with busy lifestyles.

Significance: Only 56% of women are aware that heart disease is the number one killer of women in the United States (CDC). Approximately 299,578, or about 1 in every 5, female deaths are a result of heart disease (CDC). Hypertension impacts African American women more in comparison to any other racial groups. In the U.S., nearly 58% of African American women have high blood pressure compared to about 41% of white and Hispanic women. For African American women, death rates from high blood pressure-related causes are nearly double that of white women and more than twice the rate for Hispanic women. VI Health and Wellness Coaching, LLC provides personalized health coaching to women who have hypertension. Clients are coached using the organization’s signature C.O.N.T.R.O.L. curriculum which is made up of seven modules providing women with lifestyle change information on how to manage and control their hypertension.

Method/Approach: Each educational module is in correspondence with the VI Health and Wellness Coaching, LLC company’s framework. The curriculum consists of various web page articles that speak about proper nutrition, physical activity, how to measure blood pressure, goal setting, reducing sodium levels, and stress management. The fall semester intern provided research which was augmented by additional search via Google. Each module was compiled into a 1-2 page document. Five to eight questions per topic were created to be used at a later time as pre/post tests for clients. After the preceptor approved each write-up, they were added to the agency website. A social media intern created posts to promote the webpages for Instagram, Facebook, and LinkedIn.

Outcomes/Results: Between January to March 2022, four educational modules and related questions were completed. For the first module “Clarity” was an informational post about what hypertension is, how it affects you, intervention plans, and coping skills. The second post was titled “One Size Does Not Fit All”, which speaks about goal setting. “Nutrition and Physical Activity” is the third module and it works on building better eating habits and finding ways to incorporate exercise into your daily life. The fourth module was “Taking your Blood Pressure at Home” and it informs each client on how to safely use a monitor at home. Each module was finalized and published on the VI Health and Wellness Coaching, LLC website and the Facebook Group: Healthy & In Charge. Between January to March 2022, 120 people on average viewed the educational modules.

Evaluation/Conclusion: These resources will be used to improve the lives of African American women with hypertension. The seven educational modules will help positively modify each client’s behavior who are trying to reach their health goals. Success of the project will be measured in part by how many people visit the various C.O.N.T.R.O.L educational modules online and enroll in health coaching. The educational modules will elevate the reputation of the agency and attract new clientele.
Title: Oncology Newsletter

Name: Kevin Kong

Preceptors: Direct Supervisor: Andrea Semlow, Cancer Screening and Prevention Program Manager

Agency: Parkland Health

Purpose: To create a sustainable, internal newsletter that informs employees of program milestones, contributions, and internal and external resources that can be utilized to improve delivery and quality of cancer care.

Significance: Parkland serves as the safety-net health system for Dallas County residents and is one of the largest public hospitals in the country, averaging more than 1 million patient visits annually. The system includes an 882-bed acute care hospital, 20 community-based clinics, 12 school-based clinics, and outreach and education programs. With over 2,000 new cancer cases per year, Parkland is a major cancer care provider in the Dallas – Fort Worth Metroplex. At Parkland, nearly half of cancer patients do not have insurance. The goal of the newsletter is to consolidate and disseminate information to providers and staff throughout the departments of Parkland Health’s Cancer Program that detail important events, milestones, continuing education opportunities, and updates within the program for providers and staff to reference so that they have an understanding and knowledge of what goes on within this vast and comprehensive cancer care program. The information in this newsletter will also include any potential community events and resources that providers can refer their patients to.

Method/Approach: A Gantt chart was created with various stages of project milestones to successfully complete at least one newsletter edition. A template for the newsletter was created and presented in meetings with service line leads for review and feedback. In addition, a content request form was created and sent out to appointed points of contact (from each service) with a variety of questions regarding policy changes, events, continuing education opportunities, EPIC changes, QI/research projects, and staff spotlights. This process and its resources were documented to create a procedure and information document for future interns to reference when creating future newsletters.

Outcomes/Results: The end product will consist of at least one newsletter to be distributed throughout departments in the Parkland Cancer Program, as well as a document that documents this process for future interns to reference when creating newsletters.

Evaluation/Conclusion: The project will be evaluated with a survey of cancer program staff via Microsoft Forms. The success of the project is dictated by the utilization of the newsletter, the production of the procedural document for future interns, and whether the newsletter will continue to be distributed among the cancer program clinics.
Title: Middlesex Water Contaminant Health Education Campaign

Name: Taylor Lavalla

Preceptors: Ezra Helfand, Executive Director & CEO

Agency: Wellspring Center for Prevention

Purpose: To develop a health education campaign to help understand the prevalence and health effects of water contaminants and promote efforts to protect the community, while promoting healthy water drinking.

Significance: According to the EPA, if drinking water contains unsafe levels of contaminants, it can cause adverse health effects, such as gastrointestinal illnesses, nervous system or reproductive effects, and chronic diseases such as cancer (EPA 2022). Recently, Middlesex County found harmful contaminants, including PFO/PFAS, chromium, and arsenic, in tap water that exceed Environmental Working Group (EWG) Health Guidelines. Most of these contaminants are harmful to human health and lead to adverse health effects. The purpose of this health education campaign will be to use evidence-based research to educate the community on the impacts of drinking dirty water and how to protect oneself from these water contaminants. By presenting these issues that are affecting the community, Healthier Middlesex and Wellspring Center for Prevention aim to increase individual’s knowledge on what is in their local water and take actionable steps for improving their water quality.

Method/Approach: To educate the people of Middlesex County on the existence of contaminants in their water supply and ways to maintain clean drinking water, an educational presentation was created. To create this presentation, information was collected using comprehensive research on the prevalence of the water-related issues in Middlesex using the EWG Tap Water Database. To evaluate the presentation, a survey was created to measure people’s awareness of what is in their local drinking water and what resources are available to them. By working with Healthier Middlesex, a PowerPoint presentation was developed that could be presented to the Middlesex Health Department, the Middlesex County Humans Services Advisory Council, local officials, and residents of Middlesex County. The components in this presentation include: what contaminants existed, the health effects these contaminants cause, the importance of effective water filtration and different filtration methods that can be used, and other preventative measures.

Outcomes/Results: Based on the 46 responses from the questionnaire, 74% of people do not know where the water they are drinking comes from. A good proportion of people (37%) do not use a type of water filtration method at home. More respondents (59%) have received a water use advisory, such as “boil water”, but only (13%) of people felt very prepared for this advisory with the information given. The majority of respondents (67%) do not know where to go to find more information about the water they are drinking.

Evaluation/Conclusion: Based on these results, people need to become better informed on safe drinking water. This health education campaign is in the planning phase and the next stage of this program is the execution phase where the presentation will be delivered and widely available. After the presentation is executed, similar questionnaires will be implemented to measure whether or not it helped educate people and if the campaign was effective. There is a future consideration for
Title: “Healthy Eats” Food Security Promotion

Name: Jihong Lee

Preceptors: Manuel Castaneda, Director of Community Health

Agency: New Brunswick Tomorrow - New Brunswick, NJ

Purpose: To educate the community about healthier eating through educational posts on social media and to provide food-based educational social media content in order to promote nutrition and overall wellness.

Significance: Live Well-Vivir Bien New Brunswick focuses on raising awareness as well as educating the community about food security “Eat Well”. Live Well helps connect information and community resources to help gain access to healthier foods and make lifestyle changes that can help you lose weight, lower blood sugar, fight obesity improve blood pressure, and possibly lower your cholesterol. Social media allows the agency to reach a large audience. This project will use Instagram, Twitter, and Facebook to promote the “Eat Well” campaign. New Brunswick is a food desert as there is no close access to grocery stores or markets and the community must rely on convenience stores or fast-food restaurants for their main food source.

Method/Approach: Between April 3 and April 28, each week had wo days of posts where content included interactive stories, educational posts, and mindfulness videos. The analytics were measured through Later, a scheduling platform for social media. Content included how we can use food as medicine, recipes, and dishes to incorporate into everyday life. The analytics showed how the weekly posts in April improved compared to the previous month's March and saw how engagement had improved through the measurement of likes, shares, reach, and impressions. This information would also help Live Well see how different kind of food content and recipes will help the community better their care and expand their knowledge on food health. A focal point to food security is eating healthier. Food security is tied to income but for those with lower incomes in food deserts, accessing fresh healthy foods may be difficult. My posts correlated taking basic everyday foods to eat healthier with what is available to the community now.

Outcomes/Results: Analytics were measured through Later, a scheduling platform for social media. For the month of April, nine different topics on healthy eating went up. On average, the number for Instagram stayed pretty consistent and ranged from 145 to 151 and the engagement was consistent with each post. When analyzing the reach and impressions, posts with specific foods to help with health, as well as recipes, had gotten more traction than posts without. Comparing Instagram story analytics, the month of April’s healthy eats posts did better than March’s posts of food security content. For March, the Instagram stories remained at a combined total reach/impression of 73 and for April, Instagram stories had a reach of 182 and impressions at 184.

Evaluation/Conclusion: Live Well’s Instagram had positive growth and engagement compared to the previous month’s posts on food security. The reason may be that it was a new perspective on the Eat Well focus point of Live Well. Moving forward, Live Well can continue to create educational content on healthier recipes. They can take advantage of when followers are online the most to better plan their posting schedule and get even more engagement and reach.
Internship Abstract

Title: The Impact of Social Interaction in Senior Citizens

Name: Tiffany Liao

Preceptors: Kate Ann Brace, Program Development Specialist

Agency: New Brunswick Senior Citizen Resource Center

Purpose: To promote social activity and cognitive learning among senior citizens by researching and creating interactive games for them to engage in once in-person activities are allowed at the senior center.

Significance: As older adults age, it becomes harder for them to have social interaction and engagement amongst each other. In 2019, around 28% of older adults in the US (14.7 million people) lived alone (AoA, 2020). This can cause them to feel more isolated from the outside world. As a result, their health can gradually deteriorate. It was found that social isolation in older adults, aged 50 and older, was associated with around a 50% increased risk for dementia. Poor social relationships among seniors led to 29% increased risk for heart disease and 32% increased risk for stroke (CDC, 2021). The New Brunswick Senior Citizen Resource Center acts as a place for seniors to interconnect with each other in a fun, safe, and healthy environment. This project on researching and creating interactive games can stimulate cognitive learning and thinking, and can allow the participating senior citizens to enjoy themselves and take a break from life at home.

Method/Approach: Research was conducted by investigating through the internet what games older adults were interested in. A PowerPoint, created in a Jeopardy template/format with facts on various potential games, was presented to senior citizens to see what games they found the most interesting and which would be the most engaging and entertaining. A short survey was conducted before the survey asking about their previous knowledge and/or enjoyment of games. A survey was also conducted after the presentation on which games they would enjoy the most and any feedback or suggestions to make them more exciting.

Outcomes/Results: At the start of the presentation, the seniors were asked about some games that they enjoyed playing in their own time. Some responses included card games and board games. When the presentation ended, they were asked if they learned anything new about games, any games mentioned that they were interested in playing, and if they would join more in-person events at the senior center if these games were introduced. All attending seniors said they learned something new and were interested in attending more in-person events if more activities involving interactive games were put in place. Some games that were mentioned included monopoly, dominoes, and bingo.

Evaluation/Conclusion: Overall, the survey and presentation were successful; they expanded the seniors’ knowledge on the dynamics of games and had them more interested in participating in in-person events at the senior center. Some limitations during the implementation of this project included several uncontrollable variables. The number of seniors attending each presentation was unknown, making it difficult to get relatively unbiased responses. Some seniors were not interested in the presentation topic on games and in playing board games at the center, causing there to be less engagement when responding. Ongoing surveying will be carried out as the senior center starts opening up to more people, allowing there to be a bigger sample size and fairer responses.
Internship Abstract

Title: Mental Health of Women Post-Miscarriage

Name: Victoria Lipari

Preceptors: Gloria Bachman

Agency: Rutgers RWJMS Women’s Health Institute

Purpose: To conduct a literature review on the mental health of women post-miscarriage and create an educational essay with a poster to present at the New Jersey Obstetrical and Gynecological Society’s 70th Annual Meeting to raise awareness of this topic.

Significance: Pregnancy, regarded as a joyful time, can be turned into a shocking loss and tragic event for those going through pregnancy loss. In 2008, 1.1 million pregnancies ended in miscarriage, resulting in about 20% of woman becoming symptomatic for depression and/or anxiety (Nynas, 2015). Psychiatric morbidity following miscarriage impacts quality of life and potential future pregnancies for many. The Human reproduction Update found in their study that early pregnancy loss (EPL) has a significant risk of psychological morbidity with up to 41% self-reporting clinically significant levels of anxiety, 36% depression, and 39% self-reported post-traumatic stress disorder (PTSD) at 3 months (Farren, 2018).

Method/Approach: Information will be collected by conducting a literature review of scholarly articles and studies done on women post-miscarriage to gain more of an understanding on the negative impacts on women’s mental health. After completing the literature review, a research essay will be created and the poster for the New Jersey Obstetrical and Gynecological Society’s 70th Annual Meeting will be developed and submitted for final review by April 15th. The final presentation will be presented to all those attending the New Jersey Obstetrical and Gynecological Society’s 70th Annual Meeting using a poster board format and delivered in Atlantic City on May 20th, 2022 to spread awareness on this ongoing public health issue.

Outcomes/Results: Upon completing and submitting the paper and poster on April 15th, 2022, they have been accepted and registration for the event is complete. Findings from the project have shown that psychiatric morbidity, anxiety, depression, and PTSD are all significant risks of those post-miscarriage. Reproductive trauma is medically common due to traumatic loss of the pregnancy and sense of self. Women who have suffered through miscarriages go through both physical and mental trauma. The process of their bodies’ healing can be more challenging due to mental stability. Support groups and psychotherapy are the most effective ways to improve mental health. These women can have PTSD when pregnant in the future; grieving and processing time are needed.

Evaluation/Conclusion: As the presentation won’t take place until after the completion of Professional Practice presentations, final data of participants and receipt of the project will not be available. I have high expectations that those attending the event will be aware and acknowledge how psychiatric morbidity, anxiety, depression, and PTSD are all significant risks of that post-miscarriage, along with how prevalent these mental impacts are.
Internship Abstract

Title: Compliance at Home Health Agency

Name: Natalie Lopes

Preceptors: Natallia Pranko RN BSN

Agency: Home Care For You Inc.

Purpose: To collect and review compliance documents from employees to ensure compliance with agency and state regulations and procedures.

Significance: Home Care For You is a privately-owned agency that provides home care services to the elderly, ill, and disabled through certified home health aides who travel to the patient’s homes. The agency strives to schedule continuous and reliable care to allow patients to continue to live in their own homes. Home health agencies are highly regulated and it is crucial that regulations are consistently monitored. Factors such as the COVID-19 pandemic, transitioning to working from home, transitioning from paper records to electronic records, and understaffing contributed to the disorganization of mandatory compliance procedures. This project focused on compiling necessary documents to assure compliance.

Method/Approach: The agency’s electronic medical record (EMR) system, CareCenta, was used to export an Excel worksheet that showed what compliance information the home health aides were missing. The agency was relying on CareCenta and physical files for home health aide and patient data. Data missing from CareCenta was located and added from the paper files. Other missing compliance documents such as the yearly TBQ forms, expired I-9 documents, and mandatory in-service tests were identified. Home health aides missing critical information were contacted via mail to their home address.

Outcomes/Results: Out of 75 home health aides, 37 missing TBQ forms were collected, 12 I-9 forms were updated, and 32 missing mandatory in-service tests were collected. All missing documents were received through email, text message, fax, return mail and by person. Documents were scanned electronically, uploaded and updated to CareCenta. Exceptions were added to the database for future audits. These exceptions for overdue compliance included home health aides that were on vacation, were sick in the hospital, or were no longer working for the company.

Evaluation/Conclusion: Most of the information needed was easily collected with a simple follow up phone call. Understaffing of the office staff in the home health department impeded time for following up on missing compliance documents. However, CareCenta is now updated with all the missing documents and information. The office staff can be more secure and time efficient in their work because all staff from multiple offices can access the home health aide’s profile through the EMR system. The home health aides are also held accountable for the proper compliance tasks that need to be followed to remain an employee of the agency. The agency is ultimately more prepared for when the Board of Nursing does a mandatory 2-year audit.
Title: FJWL Food Pantry Program Management

Name: Ashley Lovo

Preceptors: Quidai Palmer, President and Co-Founder

Agency: From Jersey with Love- Non-Profit Organization

Purpose: To provide program stability and funding acquisition by identifying the community’s needs, creating a grant packet, and applying to grants available.

Significance: From Jersey with Love is located in Monmouth County New Jersey which has 44,060 individuals who are unable to provide food for themselves and their families. More than 8% of Monmouth County families with children under the age of 18 are living in poverty, and struggle to meet basic needs. The highest rates of children living in poverty can be found in Asbury Park (39%) and Keansburg (32%). From Jersey with Love is dedicated to providing aid to their community by hosting their Let’s Eat program, a weekly food pantry. This past year, FJWL’S Let’s Eat program has served 300,000 pounds of food and proudly serves 200 families in the Monmouth County area. It is crucial to provide financial sustainability to non-profit organizations so they can continue to help families with basic necessities. From Jersey with Love is looking to expand its services by providing its community with new programs like the Closet of Love and Leading with Love. My grant writing project will give the organization great insight into the community's needs by researching Monmouth County’s demographics and disparities. The grant project will also allow FJWL to continue to provide these services without solely relying on the support of individual donors.

Method/Approach: In order to efficiently create a grant packet the team attended grant information sessions like Impact 100 Jersey Coast and Congressman Andy Kim’s NJ03 Foundation Grants Webinar. These webinars provided the team with great insight into what companies are looking for when funding an organization. In addition, research on demographics was collected to get a better understanding of the community we serve. Data was gathered from the United States Census Bureau and Data USA. Monmouth County’s 2020 Needs Assessment was also used to identify the county’s population’s unmet health needs; along with a plan of action that can help meet those needs.

Outcomes/Results: The FJWL Grant packet was created and provides a grant standard format for future grant applicants. The grant packet includes a letter of inquiry, project summaries, problems and solutions, and the impact and scale of the programs offered. While collecting data from Monmouth County’s Needs Assessment we found that because of high-cost living, many families need to choose between paying rent, utilities, childcare costs, healthcare, or food. Over 35% of survey respondents ranked food as a priority. This type of information was crucial for us to advocate for more funds in grant applications.

Evaluation/Conclusion: Grant writing sessions have helped give insight into what companies are looking for when giving funds out to organizations. Sessions allowed staff to see the organizations’ strengths and weaknesses. FJWL has gained insight into the importance of focusing on sustainability, scalability, and the current and future impact of the programs offered.

Citations: Abstract Citations
Internship Abstract

Title: Pharmaceutical Competitive Intelligence Performance Assessment

Name: Brandon Low

Preceptors: Emanuele Criscione, CEO and Ankit Patel, Pharmaceutical Analyst

Agency: LCN Consulting Inc - West Caldwell, NJ

Purpose: To provide market research and competitive intelligence in West Caldwell to pharmaceutical companies.

Significance: Every year the Food and Drug Administration approves around 40-60 drugs that impact many therapeutic areas. The United States also has 451 Generic Pharmaceutical Manufacturing businesses. New Jersey happens to be one of the largest hubs of pharmaceutical companies that compete against each other. LCN Consulting performs a dimensional intelligence investigation on the current market space and provides a comprehensive analysis and recommendations to pharmaceutical clients to aid them in business operations. This project focuses on providing pharmaceutical companies with a strategic advantage through primary and secondary investigation.

Method/Approach: A meeting was held with managers to outline the new competitive intelligence report for the client. Investigational research on top pharmaceutical companies involves using Clinicaltrials.gov, Investor Presentation, SEC Filings, and Primary Interviews. A second meeting later reviews the findings and determines what further steps are required. For cases that require primary research, cold calls and interviews with C-Suite level executives are scheduled promptly. The purpose behind these interviews is so that LCN Consulting can acquire quotes about the market state from key opinion leaders. A draft report (usually PowerPoint) is created based on previous templates from the firm. Quotes from key opinion leaders and graphics in the report are there for supporting evidence. A pitch was made to the client via Zoom to gather any additional information or answer questions.

Outcomes/Results: Between January 20th and April 8th, many Competitive Intelligence reports were completed. The average deliverable was >80 slides and covered topics such as companies' promotional messages, incoming investigational therapies, and any news within the last period. The number of companies investigated ranges from 4 to 10 and can be greater depending on the client's needs. All meetings resulted in positive feedback towards LCN Consulting. Additional comments and edits were addressed immediately for client satisfaction.

Evaluation/Conclusion: One of the most challenging aspects of creating an intelligence report was identifying the most relevant and updated data that pertained to the client's focus. Gathering information through primary or secondary research can be very tedious and time-consuming. Many datasets hide through large documents such as SEC filings and investor presentations. Because of this, it becomes difficult to discover public information because the key information hides beneath 100s of documents. Designing and finalizing the report based on these findings can be difficult at times due to inconsistent levels of significance. Overall, the deliverables throughout this internship proved helpful to the client's and their company's growth.
Internship Abstract

Title: The Development of a Clinic in Kenema (Mondema), Sierra Leone.

Name: Abiba A. Macauley

Preceptors: Kim Kokett, Hindolo Pokowa

Agency: Sierra Leone Foundation for New Democracy (SLFND)

Purpose: To develop an organizational process of building and staffing a health clinic on a 20 acre project site for the “Sierra Leone Foundation for New Democracy”. This includes obtaining sponsorships for supplies, and developing a guide for staffing and maintaining the clinic based on best practices as determined by research of culturally focused health development projects completed by similar organizations.

Significance: The creation of the clinic will serve as a community health center in the Modeman rural area of Sierra Leone by providing care in underserved communities, especially for those with the inability to pay for healthcare. Sierra Leone has medically underserved areas that are defined as having a high percentage of people living in poverty, scarcity of primary care physicians and other healthcare professionals, higher than average infant mortality rates and high percentages of the elderly. This clinic will serve as an investment to create job opportunities for healthcare professionals in these rural areas in Sierra Leone. In addition, the organization will be collaborating with healthcare training institutions across the country and have professionals deploy in this region to serve the community.

Method/Approach: The methodology of this project is a slow one as we have a two-year timeline to set things in motion. In no particular order, we set up deliverables to help us get there. The first deliverable includes finding a land to build on, find grants and partners and apply to said grants. The second deliverable consists of the budget for the construction of the building, contractors and creating an income source locally. The third deliverable is all about our social media presence. Fourth deliverable deals with medical staffing and medical supplies. Lastly, the fifth deliverable is all about the postmortem on the whole project and tying any loose ends.

Outcomes/Results: The organization’s social media presence is already in the works as we have Instagram, LinkedIn and YouTube accounts to put us out there. The goal to be financially independent is a deliverable we hope to achieve once the clinic is up and running and as of right now, we are in the process of creating a marketable feature on our website which includes the sale of African body products to people all over the world and these products will be made in Sierra Leone.

Evaluation/Conclusion: The project is moving along as it should as I work in part to finding partners, grants and fundraising opportunities to help us succeed. In the coming weeks as grants applications open up, I will be applying to them and increase our social media traffic as much as possible. The acquiring of medical supplies will be in the works as well once the funding for construction is secured. In addition, I hope to continue working on this project even after the internship ends. It makes sense to do so as I hope to continue offering my services to see the end of the project and possibly start new projects or enhance others within the organization.
Internship Abstract

Title: Collection of Articles on U.S. Policy Toward Europe and Russia

Name: Matthew Mai

Preceptors: Adam Lammon

Agency: The National Interest

Purpose: To publish three article-length analyses proposing revisions to long-standing U.S. security policy in Europe and outlining options for improving relations with Russia.

Significance: Since the end of the Cold War, the U.S. has maintained a robust and steadfast political and military commitment to European security through the North Atlantic Treaty Organization (NATO), while relations with Russia have steadily worsened. Today, even though the original raison d’être of NATO (the Soviet Union) has disappeared, there are over 75,000 U.S. air, land, and sea forces stationed on more than thirty military bases and installations in Europe. More specifically, the dominant policymaking paradigm has neglected to consider the implications of NATO enlargement and European powers’ buck-passing on defense to the U.S. Publishing article-length analyses that challenge these underlying assumptions will help shape the policy discourse as the risks and costs of U.S. security commitments, relative to the benefits accrued, continue to rise.

Method/Approach: The first step was to connect the subject with an ongoing policy event. The first article, which discussed the U.S.-Germany security relationship, used the impending invasion of Ukraine as the hook. Second, a thesis was formulated that was pitched to the editor. After receiving feedback, a draft was written that divided the analysis into four sections. The key to writing a compelling analytical article is to articulate and defend specific policy assumptions, and then outline what the concrete implications of those assumptions are. Finally, after receiving edits, the language of the analysis was tightened before submitting it again for final publication on the magazine’s website.

Outcomes/Results: Between January 18 and April 6, three articles on U.S. foreign policy towards Europe and Russia were published on https://nationalinterest.org/. The first article argued that Germany would be a better U.S. ally if, in close partnership with France, it became a “framework nation” in the European security order. To do so, the U.S. needed to downsize its military commitments in Europe to incentivize greater German defense spending and investment. This article received sixteen likes and 494 impressions on LinkedIn. The second article addressed the ongoing crisis in U.S.-Russia relations as a result of the invasion of Ukraine. This piece argued that the long-term consequences of making Russia an untouchable pariah would be a grave strategic miscalculation that harms U.S. national interests. The world’s preeminent nuclear powers must still find a way to cooperate on critical issues such as arms control. To that end, the U.S. should condition the lifting of sanctions on the withdrawal of Russian forces from Ukraine following a political settlement. This article received twenty-six likes and 784 impressions on LinkedIn. The third article, which was prominently featured on the website’s homepage, examined a critical document recently released by the European Union: the Strategic Compass. The analysis focused on the document’s spending priorities, strategic focus, and implications for the transatlantic relationship.

Evaluation/Conclusion: A significant indicator of the future of U.S. security policy in Europe will be the release of NATO’s Strategic Concept this upcoming June. Similar to the Strategic Compass, this document will be examined and assessed in light of the proposed revisions to U.S. policy in Europe.
Title: Community Program Tool for Newark

Name: Haseeb Malik

Preceptors: Colette Barrow, Director of Population Health

Agency: University Hospital- Newark, NJ

Purpose: To observe health and social needs in Newark by analyzing focus groups and interviews

Significance: Newark, has a poverty rate of about 27% as compared to New Jersey’s 9%. The rates in health outcomes are lower than average as well. Newark has an issue accessing healthcare, reporting that 19% of the population in Newark does not have health insurance. The ratio of residents of Essex County seeking health care to primary care physicians is 1180:1 which makes it a large need for physicians. This indicates higher rates of health disparities in one of NJ’s most socially, economically challenged cities. The Community and Population Health team at University Hospital combats this issue by addressing issues of homelessness, lack of health coverage and more for patients residing in Newark and its surrounding areas.

Method/Approach: Nineteen focus groups and 15 interviews were held with Essex County residents and leaders between February-November 2021. A total of 247 people participated in the focus groups and 16 in the interviews. These were held in person and via Zoom. The recordings were downloaded for analysis. Using Microsoft Word, transcripts were organized into four domains: Community Assets, Community Concerns, Healthcare Needs and Suggestion for Improvement. A summary was created based on the collected comments and sent to the preceptor to be included in a working draft of the Community Health Needs Assessment.

Outcomes/Results: Two hundred and twenty-one people out of 267 completed a demographic survey. 170 (77%) were between the ages of 30-69; 152 (73%) self-identified as a Black or African American and 61 (29%) as Hispanic. Six or 55% of the key informant interviewees were 30-49 years; 6 or 54% were Black/African American and 5 or 45% White; 9 or 82% were non-Hispanic, followed by 2 or 18% Hispanic. Topics for improvements centered around shelter/housing, community involvement, education, workforce development, counseling, and food accessibility. Topics in healthcare were clinical and behavioral health, accessibility to healthcare and insurance coverage. Community members felt that programs such as charity care were not sufficient enough to cover the burden of costs placed on the individual while accessing healthcare.

Evaluation/Conclusion: Connecting with various groups in the community has greatly helped with the objective of this project. However, it is difficult to address the needs in the community based on this assessment alone. Additional research among different members of the community may be beneficial; and there should be other research methods used such as home to home surveys, community meetings and direct observation. The next steps to assure that the project can be successful is implementing new strategies that University Hospital does not already have to satisfy the health needs of the community.
Title: Increase Promotion of Sexual Health and Wellness Education Through Instagram

Name: Jasmine Manglavil

Preceptors: Stephanie Franklin, Founder and Executive Director

Agency: Masakhane Center - Newark, NJ

Purpose: To extend the reach of sexual health and wellness educational content from Masakhane Center through the utilization of social media, specifically Instagram.

Significance: Across the United States, sexuality education programs vary widely in content and effectiveness. According to the National Conference of State Legislatures, as of October 1, 2020, only 30 states and the District of Columbia require public schools to teach sex education; only 28 of these states require both sex education and HIV education (2020). Comprehensive and inclusive sexuality education is incredibly crucial, as it yields positive outcomes, such as preventing child sex abuse & intimate partner violence, increasing appreciation for sexual diversity, and improving environments for LGBTQ students (Goldfarb & Lieberman, 2021). Masakhane Center addresses insufficient and ineffective sexuality education by providing sex-positive, pleasure-focused, comprehensive sexuality education in and around Newark, NJ through their workshops and social media platforms, as most youth and young adults are active on social media. In fact, according to Pew Research Center, about 71% of 18- to 29-year-olds say they use Instagram, with younger users being more active on the site (Auxier & Anderson, 2021). They say that around 52% of teens (ages 13 to 17) use Instagram (Anderson & Jiang, 2018). This project seeks to have Masakhane Center continue to spread sexual health and wellness education through Instagram while improving their performance by identifying and posting at a peak time.

Method/Approach: To identify the optimal time for posting, Instagram analytics were collected to compare performances from Masakhane Center’s account for 10 posts about health and sexual wellness that were posted within two time periods: five posts from February 2022 and five posts from March 2022. During February 2022, the posts were posted online at 10:30 A.M. During March 2022, the posts were posted online at 3:00 P.M., as that is when the school day ends for most students. Content interactions (likes, comments, shares, and saves), reach, and engagements were tracked and analyzed on Instagram Insights for the 10 posts to see if the timing of the posts made an impact on the account’s performance.

Outcomes/Results: Thus far, Masakhane Center’s Instagram insights have increased considerably. To be more specific, for the five posts from February 2022, the average number of accounts reached was 323.6, the average number of accounts engaged was 28, and the average number of content interactions was 35.4. For the five posts from March 2022, the average number of accounts reached was 474.4, the average number of accounts engaged was 45, and the average number of content interactions was 59.6. This data analysis shows that a 46.6% increase, a 60.7% increase, and a 68.4% increase were seen in the reach, engagement, and content interactions, respectively, for the posts after the timing was changed from 10:30 A.M. to 3:00 P.M.

Evaluation/Conclusion: The Masakhane Center Instagram account had an overall positive change in its performance after changing their posting time from 10:30 A.M. to 3:00 P.M. This positive change in its performance allows them to conclude that they were able to educate more individuals and extend the reach of their sexual health and wellness educational content through their Instagram.
Title: Covid-19 Emergency Response

Name: Isatou Manneh

Preceptors: Lori Karabinchak, Health Educator Risk Communicator & MRC Coordinator
Margaret Owusu, B.S Public Health, CEO of Fit2Stretch

Agency: Middlesex County Medical Reserve Corps & Fit2Stretch

Purpose: This project aims to carry out a detailed analysis of the COVID-19 response in New Jersey by diving into the emergency response process throughout Middlesex county and analyzing the increase in interest of health and wellness during the pandemic.

Significance: The COVID-19 epidemic has wreaked havoc all over the world, causing enormous physical, financial, psychological, and sociological problems. Despite the high rates of infection and mortality, testing is nearly double the population of 9.4 million people in New Jersey. As social distancing has been one of the most effective methods in preventing the virus’s spread, many aspects of people's lives, including routine fitness activities, have been hampered by the imposed lockdown. This has resulted in the closure of businesses, public places, fitness and activity centers, and overall social life, leading to health concerns. Individuals' attitudes toward fitness, health, and wellbeing have evolved after months in quarantine, and more individuals are taking care of their health than ever before.

Method/Approach: Data was collected from The Middlesex County Health Department. The data outlines different components of response which focuses on vaccine clinics, testing sites, and call centers. The data was organized into a pie chart to examine the effectiveness of these response methods in decreasing COVID-19 rates in New Jersey. In relation to overall health, digital tools such as social media were powerful ways to promote health and wellness during the pandemic. The second component of my project was at Fit2stretch which entailed managing social media outreach programs, developing flyers that were marketed for wellness campaigns, and company promotions. The Instagram postings were made up of stock photographs and text-based visuals. Captions beneath the post focused on how one can improve their entire physical and emotional wellness with Fit2Stretch's designed massage techniques. These social media tools were utilized to measure community engagement and evaluate interests in wellness behavioral change.

Outcomes/Results: Under the Middlesex County Medical Reserve Corps, volunteers with a total number of 4665 hours spent at vaccine clinics, call centers, and testing sites were collected from the dates 3/13/2020 to 2/17/2022. 27% of hours were spent at vaccine clinics in New Brunswick, 26% were spent at testing sites in Edison, 17% at vaccine clinics in Perth Amboy, 13% at testing sites in New Brunswick, 11% at call centers, and 5% at testing sites in South Brunswick. Fit2Stretch’s Instagram campaigns yielded the following results: 23.8% increase in accounts reached, 22.5% increase in accounts engaged, and a 1.3% increase in total followers from February 7th, 2022 to March 8, 2022.

Evaluation/Conclusion: This data demonstrates that New Jersey has done an excellent job scaling up testing and administering vaccines. Additionally, the data demonstrates that most of the volunteer time was spent at either vaccine clinics or testing sites which has been the most effective in decreasing the amount of COVID-19 cases in New Jersey. Overall, the data from Fit2Stretch’s Instagram campaigns has also increased awareness in utilizing wellness to maintain positive mental health. In terms of future implications, the response to the campaigns demonstrates the effectiveness of utilizing social media to promote ways to keep up with one’s overall health during a pandemic.
Internship Abstract

Title: Transportation Assessment and Outreach to Support ScreenNJ’s Program Expansion

Name: Brooke Margolin, Research Intern

Preceptors: Dr. Rita Musanti, Assistant Director

Agency: Rutgers Cancer Institute of New Jersey - Community Outreach and Engagement

Purpose: To analyze state and local transportation options in New Jersey counties and determine where partnerships can be built to implement the transportation voucher program in the ScreenNJ program.

Significance: Cancer is the second leading cause of death in New Jersey killing over 15,000 people in 2019 (NJ Department of Health, 2021). In New Jersey, there are significant barriers to patients’ ability to be screened for disease due to limited public transportation lines having service to medical facilities. The ScreenNJ program based out of the Rutgers Cancer Institute of New Jersey provides free screenings for breast, skin, and prostate cancers, cancers related to genetic risk factors, and HPV-related cancers for individuals who would not be able to otherwise for financial or transportation reasons (ScreenNJ, 2022). Transportation is one of the main factors preventing individuals from being screened (Wang, 2016). This project will analyze the current transportation systems and build partnerships with local taxi and transportation businesses to build partners in the community to further ScreenNJ’s mission of expanding cancer screenings in the State.

Method/Approach: To effectively implement transportation mechanisms that will reach patients with the highest risk, a two-pronged research approach was required. The first part focused on understanding what local companies currently exist in each county in New Jersey. To execute this, research was conducted using online databases. Once the information was collected, outreach to the individual companies was made via telephone and email to gauge their interest in partnering for the new ScreenNJ transportation voucher program. The second part focused on understanding the larger factors that have allowed the transportation disparities in New Jersey to exist. Research on the history of public transportation was conducted as part of the literature review. This information was supplemented with mapping by the Principal Statistician to display still images of New Jersey’s bus, rail, and light rail routes and stations/stops; Area Deprivation Index by census block; and an interactive cancer surveillance dashboard. The combination of qualitative and quantitative research was used to determine the highest areas of need in the state based on a number of indicating factors.

Outcomes/Results: Through research on existing locally-based transportation companies in New Jersey, counties in the northern and central regions of the State, including Hudson, Passaic, Bergen, Morris, Somerset, and Middlesex, had the most organizations. Counties with large cities, specifically Camden city in Camden county, had higher rates of transportation companies compared to other areas of the county and other counties with fewer population dense areas. Systemically, redlining played a significant role in creating the housing patterns and, in turn, transportation lines that disproportionately affect marginalized populations, especially in the more rural areas of the State.

Evaluation/Conclusion: An evaluation identified rural communities and South Jersey counties as the most medically underserved communities as well as the areas with the greatest potential for community partnerships for the transportation voucher program. Ongoing research on barriers in accessing screenings in New Jersey is imperative as the rollout of the transportation voucher program occurs.
Title: URAC and ACHC Medly Pharmacy Indicator Performance Assessment

Name: Cecilia Marino

Preceptors: Aleksandr Tsoy - Pharmacy Operations Quality Control, Miral Patel - RX System Analyst, Juan Garcia - Senior Compliance Manager

Agency: Medly Pharmacy - Brooklyn, New York

Purpose: To research and collect data about current Utilization Review Accreditation Commission (URAC) and Accreditation Commission for Health Care (ACHC) patients’ health history in Initial Assessment and Re-Assessments for the Patient Management Program (PMP).

Significance: Each year, in the United States alone, 7,000 to 9,000 people die as a result of a medication error. Between the years of 2014 and 2017, there were a total of 223 cases of serious patient harm, near death events or patient deaths in the state of New York as a consequence of medication errors. Medly Pharmacy pharmacists oversee all prescription dispensing in compliance with state and federal law and regulations. Pharmacists and pharmacy technicians will function in accordance with the pharmacy’s policies and procedures and job descriptions, accepted ethical and professional practice standards, and in accordance with all applicable federal, state and local laws and guidelines set by the board of pharmacy. By researching and collecting data about URAC and ACHC patients’ health history in Initial Assessment and Re-Assessments, Medly Pharmacy will be able to identify if patients are being prescribed the correct medication depending on their diagnosis. This will help minimize deaths and help patients get the correct treatments.

Method/Approach: A retrospective review within current Medly Pharmacy’s patients was performed for which there were Initial Clinical Assessments completed. A total of 1,705 categorized as URAC patients were HIPAA compliance-called to complete such assessment which concluded of collecting information such as place of medication administration, allergies (if any), dietary restrictions, medical condition (principal diagnosis, secondary diagnosis, comorbidities, IDC10 code), prescription/OTC medication/supplement strength/dose, route and frequency patients consumed, and pertinent health information. The data was categorized as 1) Completed Assessment, 2) MDO Delivery, 3) PMP-Out, and 4) Other. Here, a total of 237 URAC patients decided to move forward with our Patient Management Program (PMP) and enrolled for evaluation of progression made towards treatment/prescription goals with our pharmacy.

Outcomes/Results: Of the 1,705 URAC patients, 237 URAC patients completed the clinical assessment, 479 URAC patients receive MDO Deliveries (medication is administered at doctor’s office), 258 PMP-Out (did not enroll our PMP) and 731 URAC patients had other circumstances for not enrolling such as unsuccessful communication with them (no answer or left voicemail), and/or refused to conclude assessment due to them not being on a certain prescription for long enough to provide us with the information we needed (> than 2 months).

Evaluation/Conclusion: About (n=239, 14%) of URAC patients from the total number (n= 1,705, 100%) decided to enroll in our Patient Management Program (PMP). Professional telephone counseling, prescription inquiries, and health progression serve as effective schemes to intensify initial and long-term adherence of follow-up diagnostic treatment. Ongoing monitoring of clinical assessments for URAC patients will be launched to assure continued improvement in the future.
Internship Abstract

Title: SWOT Analysis of RWJBH Market Share by Service Line

Name: Bilal Matin

Preceptors: Direct Supervisor: Annie Steelman, Senior Vice President of System Strategy
           Project Supervisor: Elizabeth McNutt, Assistant Vice President

Agency: RWJ Barnabas Health (RWJBH)

Purpose: Conduct a SWOT analysis on market share metrics for patient episode counts and revenue estimates to find opportunities for improvement and expansion.

Significance: In strategic planning, market share plays a pivotal role in understanding the development of the quality and profitability of an organization’s product (Delombre & Bruzelius, 1977). Specifically for regional health systems, market share for both in-patient data and revenue estimates can be used to evaluate how service lines are performing. This project uses SWOT analysis to convert market share metrics into opportunities projections.

Method/Approach: This study looks at patient leakage and opportunity by patient type, service line, and rendering/referring provider. The data required for this analysis comes from the Trilliant Health Database and is exported to Tableau and Excel for analysis. The data is looked at by its data field (medical, surgery, radiology) and then is critiqued based on leakage from referring/rendering providers, the hospitals where cases are going, and the service lines and medical groups that account for the most leakage. The data for leakage is then converted to opportunity using market share metrics to identify where there is room for development and improvement in the health system.

Outcomes/Results: Episode count is the filtering metric to generate market share and opportunity metrics. The most opportunity in the dataset comes from Radiology (78.45%) and Surgery (73.98%). The greatest strength for RWJBH is medical patients, where they hold 34.49% of the market share, and the best county for this field is Essex County (56.53%). Along with radiology, outpatient surgery (74.52%) has the most significant opportunity for RWJBH to expand its patient base. The biggest threat to RWJBH is competition in Middlesex County because of its low market share (25.42%) despite having key facilities in the county.

Evaluation/Conclusion: This study uses revenue per case and episode count by patient type from the Trilliant Health database to identify the biggest areas of opportunity for RWJBH. This analysis found that the biggest sources of opportunity come from procedures in outpatient (OP) settings such as radiology and OP surgery. This is because episode count in these fields is significantly impacted by physician referrals which are controllable aspects of care.
Title: Robert Wood Johnson Post-COVID Recovery Program

Name: Amay Mehta

Preceptors: Dr. Sabiha Hussain, MD, MPH, Head of RWJ Post-COVID Recovery Program
Carol Shu, Social Worker

Agency: Robert Wood Johnson Medical School

Purpose: To analyze outcomes of patients at the Post-COVID Recovery Program with Brain Fog and the treatments that generated positive outcomes.

Significance: While most patients with COVID recover from their condition, there are some who will continue to experience COVID-related health problems for days or even weeks such as shortness of breath, tiredness, fatigue, etc. Brain fog, a symptom of post-COVID, seems to be a relatively novel symptom with few studies commenting on ways to treat it. The RWJ Post-COVID Clinic sees all patients with post-COVID symptoms and attempts to provide them with treatments to improve their condition. Physicians at the clinic often recommend occupational therapy to patients with brain fog, however, an in-depth analysis on patients’ outcomes from treatment for brain fog could indicate that some treatments work better than others. This project will begin the steps in understanding what treatments and recommendations have improved the brain fog condition in patients at the clinic.

Method/Approach: Data was collected using the clinic’s pre-existing database through REDCap which contains information on all patients. This information is collected via surveys that patients fill out at 3-month intervals from arrival at the clinic. Patients’ survey responses were filtered based on if they indicated they had brain fog. Patients whose treatment/outcome was unclear or missing were contacted to provide more insight into their condition. In addition, all patients were contacted to identify the change in level of brain fog since entry into the clinic. They were asked to rank their brain fog on a scale of 1-10 (10 being extreme brain fog and 1 being no brain fog), at two points in time: when they entered the clinic and at that moment when contacted. Ultimately, patient outcomes from the data analysis and results of the literature review were provided to Dr. Hussain as recommendations on how to approach patients with brain fog in the future.

Outcomes/Results: A total of 90 patients were contacted as they met the criteria of having brain fog. Of the 90 patients, 54 provided responses, 29 did not respond to being contacted, and 7 were ineligible for the study as they either did not attend the clinic or refused to provide responses. Of the 54 responses, 3 patients indicated their brain fog worsened, 9 indicated no change, and 42 indicated an improvement.

Evaluation/Conclusion: Those who experienced an improvement in their brain fog were often partaking in some form of therapy (occupational, cognitive, etc.). This was commonly recommended by physicians at the clinic and should continue to be recommended as evidenced by many patients citing it as a primary reason for their improvement. Furthermore, time also seemed to play a large role in recovery and thus physicians should explain to patients that brain fog may not dissipate quickly, calming patients’ emotional distress. Ultimately, there are many avenues to explore using this brain fog data and this research should continue in the future. Correlations between brain fog and age, other symptoms, and socioeconomic status variables could provide insight into why recovery from brain fog is varied and what physicians should address during clinic encounters.
Title: Underserved Communities: Rural Challenges and Available Support

Name: Gabrielle Meier

Preceptors: Dawn Guerrero, Manager Patient & Community Outreach

Agency: Leukemia & Lymphoma Society

Purpose: To create a free educational program based on the challenges and lack of resources experienced by cancer patients in rural areas.

Significance: About 17-20% of U.S. residents live in rural areas. Only about 3% of medical oncologists practice in rural communities and over 70% of counties in the U.S. lack medical oncologists (Kirkwood et al., 2016). The lack of medical oncologists in rural communities leads to many cancer patients constantly traveling for cancer care. Resulting in many cancer patients having feelings of isolation, being unaware of available resources, and lacking a strong relationship with their cancer team. It has been seen that rural cancer survivors experience higher rates of anxiety and depression than urban cancer survivors. This is because only about 2% of health social workers in the U.S. practice in rural areas (Charlton et al., 2015). This makes it almost nearly impossible for rural cancer patients to seek out mental health care, leading them to have higher rates of feeling isolated or a loss of sense of community.

Method/Approach: A patient education program has been implemented to discuss the challenges and available resources for cancer patients in rural communities. There are two speakers, an oncology nurse, and a social worker, that will present the education program virtually. The speakers will discuss how to build a stronger relationship with their cancer teams, become more aware of their available resources, and learn how to combat feelings of isolation. Virtual and paper flyers were created and issued to cancer facilities, patients, and members of LLS. Online QR codes and a signup website were created and distributed as well.

Outcomes/Results: The first patient education program was conducted on April 7th. The points discussed were the major challenges that rural cancer patients face. There was a post-evaluation sheet sent out to all participants. The questions that were asked were based on the main objectives of the program. Which includes: I understand the challenges that patients residing in rural communities may face when managing diagnosis and treatment, I have learned how to build a strong relationship with my local cancer team and I feel I have gained the tools to combat isolation. There was also a section at the end asking what the patients like and dislike about the program. There were 15 participants and 5 of those individuals completed the post-program evaluation sheet. 100% of the participants agreed that they have a better understanding of the challenges rural patients face and how to combat feelings of isolation. 80% of the participants agreed that they learned how to build a stronger relationship with their local cancer team.

Evaluation/Conclusion: This program educates rural cancer patients on their available resources while traveling, resulting in better care and cancer patients seeking out a greater variety of available services even while living in rural communities. Bringing awareness to these challenges will help decrease feelings of isolation and lack of sense of community leading to a stronger relationship between patients and their cancer teams. Based on participant feedback, program components will be edited and revised as needed. Positive data will potentially lead to the implementation of this program in other regions and with other populations.
Title: Newark Pilot Community Compost Program

Name: Amanda Melchiorri

Preceptors: Emilio Panasci, Co-Founder & Executive Director

Agency: Urban Agriculture Cooperative - Newark, NJ

Purpose: To create and monitor a pilot community compost program in Newark, NJ, with the intent to spread environmental awareness and minimize food waste.

Significance: The city of Newark has a long history of environmental injustices. Newark includes some of the worst food deserts in the state, with over 180,000 residents lacking access to affordable, fresh produce (New Jersey Economic Development Authority, 2022). Urban Agriculture Cooperative works to promote a sustainable food system in Newark. One component of the sustainable urban food cycle is composting, which reduces the amount of food waste that ends up in landfills and creates new, healthy soil. New soil is essential to supporting community gardens and urban farms that can grow local, accessible produce. Furthermore, reducing the amount of food waste that ends up in incinerators or landfills helps fight air pollution and climate change. Newark’s trash incinerator can be linked to air pollution and respiratory disease (National Research Council, 2000). Landfills are also currently the third largest source of methane emissions in the United States (Environmental Protection Agency, 2019).

Method/Approach: A pilot composting program was launched as part of a community composting initiative in Newark. Small amounts of food waste and carbon rich material (i.e. woodchips, sawdust, etc.) were processed through the ASP (aerated static pile) systems at an urban farm. A data collection log was created to properly monitor waste input and processing success—noting details like temperature changes and moisture—to better understand the capacity and efficiency of the ASP systems. In addition, a new webpage was created under the Urban Agriculture Cooperative website to explain to the public the importance of composting and goals of the program. Informational fliers were created to distribute to the community to spread awareness about the initiative and collect contact information for potential participants.

Outcomes/Results: The composting pilot program was created to set the framework for a future community composting collection program. The successful processing of 208 gallons of food waste in eight weeks demonstrates that the ASP systems are capable of composting food waste from the community.

Evaluation/Conclusion: The pilot composting program will transition to a community food waste collection and composting program once approval is obtained from the NJ Department of Environmental Protection. A compost collection program would provide Newark residents with a way to compost their food waste, thus contributing to a sustainable food system and fighting pollution. The pilot program must continue operating until then to efficiently process food waste and spread awareness to the community about the significance of composting.
Internship Abstract

Title: Improving Hand Hygiene Audits

Name: Romulo Meneses

Preceptors: Luz-April Pulgarin, Assistant Director of Special Programs

Agency: NYU Langone Health - Tisch Hospital and Kimmel Pavilion

Purpose: To increase the number of hand hygiene audits conducted at NYU Langone Health’s Tisch Hospital and Kimmel Pavilion in order to increase hand hygiene compliance.

Significance: Hospital-acquired infections affect nearly 1.7 million hospitalized patients every year (Haque et al., 2018). One of the primary sources of hospital-acquired infections is the hands of healthcare providers (Moujaou et al., 2022). One of the most efficient ways to combat hospital-acquired infections is through proper hand hygiene practices in healthcare settings (Moujaou et al., 2022). Hand hygiene audits have shown to play a vital role in ensuring proper hand hygiene compliance (Chen et al., 2013). The literature shows that a proper hand hygiene audit system can help contribute to proper hand hygiene and thus reduce the instances of hospital-acquired infections (Chen et al., 2013).

Method/Approach: NYU Langone Health has identified that certain hospital units must attain at least 200 hand hygiene audits per month to meet the requirements for Leapfrog safety accreditation. A retrospective review of the data was conducted to assess the number of audits conducted in these units in January 2022. Data for 42 hospital units were exported from an electronic auditing tool and onto Excel, and of those units, only 13 units (31%) had 200 audits or more. Hand hygiene audits were recorded electronically after prompting the auditor as to whether the healthcare worker they observed cleaned their hands using instant hand sanitizer or soap and water before and after touching the patient or the patient’s environment. In collaboration with the project management team at the hospital, a messaging campaign was initiated amongst the units to increase the communication to the staff as to hand hygiene audits. The communication campaign utilized the slogan, “One Audit a Day”, which allowed for staff on the units to be able to more succinctly reach the unit’s goal of 200 audits per month. Furthermore, the project management team facilitated communication from the medical directors and nurse managers to the unit staff during weekly unit huddles.

Outcomes/Results: Of the 42 units that recorded hand hygiene audits for January 2022, 13 units (31%) met their goal of at least 200 audits per month. Of the 38 units that recorded hand hygiene audits for February 2022, 12 units (32%) met their goal of at least 200 audits per month. Of the 38 units that recorded hand hygiene audits for March 2002, 18 units (47%) met their goal of at least 200 audits per month.

Evaluation/Conclusion: From January 2022 to February 2022, there was a 1% increase in units that met the hand hygiene audit goal of at least 200 per month. From February 2022 to March 2022, there was a 15% increase in the units that met their goal of at least 200 audits per month. It is evident from the results that weekly messaging at unit huddles, visual reminders throughout the units, and campaigns focusing on measurable goals such as the “One Audit a Day” campaign, assist staff in improving hand hygiene audit compliance. Ongoing monitoring of hand hygiene audit compliance numbers is necessary to ensure continued compliance and their effect on hospital-acquired infections.
Internship Abstract

Title: Analysis of the Conditions of Children with Special Needs in the Philippines

Name: Ashna Mittal

Preceptors: Direct Supervisor: Maya Crauderueff, President & Founder
Project Supervisor: Shalaka Joshi, HR Coordinator

Agency: Maya’s Hope Foundation, Inc.

Purpose: To analyze the conditions of low-income families in the Philippines who have children with special needs and aid in the organization's goals to provide basic needs or medical care where possible.

Significance: As of July 2018, around 5.1 million children living in the Philippines have disabilities (UNICEF Philippines, 2018). Many underserved and poor families in the Philippines have children with special needs and cannot afford their child’s basic needs, medicines, healthcare, etc. According to The Borgen Project, about 17.6 million Filipinos struggle to afford necessities, which is even more true for those with disabled children. Maya’s Hope has helped hundreds of families by providing basic needs to those who apply for help, giving these children the chance to stay healthy and survive. This project will study the conditions of those families and improve the process of providing care for these children.

Method/Approach: Applicants were thoroughly interviewed (mostly mothers), and the team voted on whether their application should be accepted or rejected to receive basic needs for the month based on many factors. Due to the accessibility of Facebook in the Philippines, interviews were conducted through FB Messenger, where records are present to ensure safe and proper processes. The number of acceptances and rejections were added up from January 21st to March 21st. The data was analyzed to evaluate the requests for basic needs of families living in the Philippines who have children with special needs.

Outcomes/Results: From January 21st to March 21st, there have been 84 voting cases total, including renewal and new applicants. The results show that out of 84 cases, 14 were rejected, about 16.7% of cases, while 70 out of 84, or 83.3% of the cases, were approved. Most of the rejections are from last month (9 cases) due to more new applicants who showed inconsistencies in their applications. However, the high percentage of approved applicants shows that most families are truly in need, and have been very candid and forthcoming about their income and situation. Results showed that requesting basic needs weighed heavy on the applicants, yet many were optimistic despite everything due to the help they received. Furthermore, many of those 70 applicants are renewals of families who continue to struggle and rely on Maya’s Hope to help take care of their child as much as possible.

Evaluation/Conclusion: Due to the number of applicants currently in the program and the sponsors many of them have, the approval cases of Maya’s Hope are very large and have impacted thousands of children on a much larger scale. Though taken from a short time period, these numbers prove that the struggles present for children with special needs in the Philippines are much larger than people know. If way more than 3/4ths of applicants within two months are so in need of basic things, one can only imagine how many more families struggle every day that are not as fortunate and deal with the same fears. Thus, the efforts of Maya’s Hope are incredibly caring, beneficial, and effective in providing needs, medicines, and much more to these children and families. The project will be reevaluated every 2 to 3 weeks with the entire team to ensure that everything in the program is going well and that more children are taken care of in the Philippines with the help of Maya’s Hope.
Internship Abstract

Title: Healthcare Product Marketing to Develop Training Material, Trade Show Content, and General Research Programs

Name: Julia Morris

Preceptors: Tiffany Cochran

Agency: Tent Collective Healthcare Marketing

Purpose: To analyze the effect that different marketing programs, social media content, and advertisements have on the growth of a variety of different healthcare companies/organizations.

Significance: One element of TENT Collective is the advertisement for healthcare companies, brands, and organizations, in an attempt to help expand their reach and grow their business. Another element is product training and product use content to train field sales and users on how to use these healthcare products with patients. Two major clients are Mindray Technologies and L&R Ultrasonics. Both companies are influential in the healthcare industry. For this project, an analysis of multiple sales videos for trade show marketing and website development to see how it can help impact business growth was conducted. This assessment was also designed to look at product training content for future sales representatives and its potential usefulness in the marketing of the targeted clients.

Method/Approach: To improve sales, important tools were developed that assist these companies in selling their products and reach a wider range of customers. This includes expanding the reach of these companies to get such products to patients that will greatly benefit from their use. To complete these projects various methods were used including a review of the competitive set, an evaluation of each company's business strategy, an understanding of each product's technical features and advantages, and research about the healthcare technology industry and its impact on healthcare systems and patients.

Outcomes/Results: One outcome is learning about two healthcare companies who are global leaders in the healthcare technology industry. Another outcome is learning how to market products for healthcare organizations that include nurses, hospitals, dentists, etc. Due to the timing of both trade shows and product launch on ecommerce (June, 2022) detailed results were unable to be collected. However, client feedback was that the work products will contribute to bottom line improvements and direct sales.

Evaluation/Conclusion: Project success was determined by client satisfaction for an exceptional and professional set of marketing materials, as well as successful sales results as it relates to the materials developed, and a high quality score by supervisors for strong project management, creativity, and an understanding of the category. L&R Ultrasonics is, for the first time, offering a line of products direct to customers, opening up new avenues for sales of their cleaning solutions to additional markets beyond dentistry. Mindray continues to develop and deploy cutting edge technology to keep up with shifts in the healthcare landscape, and expand their footprint beyond hospitals into universities, ambulatory centers, and large integrated healthcare facilities. The completion of the marketing and training tools lend towards long term application and overall improvement in marketability.
Internship Abstract

Title: Veteran Healthcare Services Job Fair

Name: Tahmeda Munim

Preceptors: Aaron Hajart, Chief Operating Officer
            Kayla Loughlin, Project Supervisor

Agency: Bergen New Bridge Medical Center (BNBMC)

Purpose: To engage the local veteran, military, and first responder community in participating in Bergen New Bridge Medical Center’s Veteran Healthcare Services

Significance: Implementing veteran health programs is necessary because many veterans are left without resources when they complete or leave service. Veterans may deal with physical handicaps, mental health issues, unemployment, substance abuse, and homelessness. Studies have shown that about 20% of veterans that have served in Iraq or Afghanistan deal with depression and posttraumatic stress disorder. Bergen New Bridge Medical Center specializes in Veteran healthcare. BNBMC implemented mobile health units that serve veterans, military, and first responders. BNBMC also hosts a veteran-specific career fair to aid in unemployment. Career-related services such as resume building and headshots are also offered to veterans. A career fair was planned for May 3rd to connect veterans with local veteran-owned businesses.

Method/Approach: This year’s job fair included veteran-related organizations in Bergen county. Using Google search and the Veterans Owned Business website that lists all veteran-owned businesses, a list of preliminary businesses was compiled. The project supervisor prioritized the list. Each business was contacted via phone and email to see if they wanted to participate in the May 3rd event. Those who wanted to be included were emailed to get their details. This list was sent to the Marketing division to be included in the advertisements for the event via email, printed flyers and social media. This information was also used to create materials for their table at the event.

Outcomes: Of the original 52 businesses identified, thirty-five were contacted. The job fair has space for seven vendors. Five vendors agreed to participate in the May 3rd job fair. Eleven veterans and 10 community members attended the job fair this year.

Evaluation/Conclusion: The veteran population is often overlooked and issues such as PTSD, suicide, and unemployment persist. The community outreach initiatives and educational programming held by Bergen New Bridge Medical Center raise awareness and provide support for the veteran community and their families. The collaborative efforts between BNBMC and local veteran organizations will accomplish identifying gaps in care and eliminating barriers to care. This year’s job fair will track how many veterans were able to secure employment at a later time.
Internship Abstract

**Title:** Business Plan for Pre-Admission Testing (PAT) Department at RWJ University Hospital

**Name:** Anna Murphy

**Preceptors:** Kyle Coble, Project Manager; Dustin Connelly, Director of Perioperative Services

**Agency:** Robert Wood Johnson University Hospital

**Purpose:** To create a business plan for perioperative optimization for the Pre-Admission Testing (PAT) department at Robert Wood Johnson University Hospital.

**Significance:** The current PAT department does not have enough space for perioperative optimization best practices. PAT at RWJ only has 3 exam rooms with roughly 50 patients coming in daily for about a 2-hour block of time. The waiting room is extremely small, which leaves patients and their family members irritable when the unit gets busy. There is a 3% cancellation rate amongst outpatient surgeries, which adds up when the hospital is doing thousands of cases yearly. The room for error is significant in its current state, which is why patients fall through the cracks and misinformation is given to the physicians and anesthesiologists, causing unnecessary surgical cancellations. The best practice cancellation rate is close to 1.5%.

**Method/Approach:** The PAT department saw roughly 7,700 people in 2021. This number is low because the Covid-19 pandemic caused an influx of surgical cancellations for elective procedures over the past two and a half years. In 2022, the number of patients seen in PAT continues to rise rapidly as the hospital’s focus has shifted towards procedures. The new business plan will be conducted in 5 parts: 1) Narrowed down everything that is wrong with the current PAT site 2) Analyzed data from previous years and this current year 3) Received point-of-views from the director, head nurse practitioner, nurses, and schedulers 4) Mirrored the successful method of Pre-Admission Testing at Johns Hopkins Hospital 5) Put together an evaluation of findings into a cohesive outcome/plan for the new PAT site across the street from the main hospital.

**Outcomes/Results:** This PAT site needs to achieve the optimal surgical outcome by ensuring the patient is prepared in every way for the scheduled surgery and recovery process that follows. The patients will be assessed using an anesthesia-driven pre-operative testing criterion to determine what diagnostic testing, if any, is necessary before surgery. Perioperative optimization outcomes for this plan include: 1) Reducing surgical complications, recovery time, and human error 2) Creating quality care in the safest environment 3) Maintaining an organized and managed facility for patients and staff. The outcomes are as follows: 1) Decreased day-of-surgery cancellations and an increased staff/provider satisfaction 2) Improved compliance with pre-surgery requirements among patients 3) Improving process flow and creating greater capacity of the current staff 4) Patients will be given projected times for each of the tests or activities in PAT to get a sense of how long it will take.

**Evaluation/Conclusion:** Implemented solutions that optimize patient satisfaction and surgical success include: 1) Developing a standardized pre-admission packet and checklist for all providers 2) Eliminating most rework and enabling consistent data collection 3) Creating a traveling checklist of pre-admission requirements (i.e.: list of allergies and medications) 4) Cultivating a clear role definition by evaluating current tasks completed by RN’s and APN’s and redistributing accordingly 5) Creating an ancillary services daily scheduling tool and patient itinerary.
Title: Mental Health Assessment During The Pandemic
Name: Erin Murphy
Preceptors: Robin Vlamis, Health Educator
Agency: Hillsborough Health Department-Hillsborough, NJ

Purpose: Analyze mental health statistics, conduct interviews, compare results from a national level versus state level and propose interventions to help support affected populations.

Significance: The pandemic has caused great distress to the U.S population with “overall, 40.9% of respondents reported at least one adverse mental or behavioral health condition, including symptoms of anxiety disorder or depressive disorder (30.9%), symptoms of a trauma- and stressor-related disorder (TSRD) related to the pandemic† (26.3%), and having started or increased substance use to cope with stress or emotions related to COVID-19 (13.3%)” (Czeisler MÉ, Lane RI, Petrosky E). In New Jersey, “roughly 42 percent of respondents reported symptoms of anxiety and/or depression from Jan. 20, 2021, through Feb. 1, 2021, 20 percent of whom reported an unmet need for counseling or therapy” (CHART 2021). The Hillsborough Health Department is “boots on the ground for public health services”, meaning the department is responsible for providing the necessary tools and services to the public within Hillsborough Township. That includes gaining insight into the statistics of mental health in the area and then taking action accordingly. To address issues around mental health, an action plan will be developed.

Method/Approach: Data and information for the action plan will be collected through one on one interviews and general research of current resources throughout Hillsborough. The action plan will identify the population affected most by the pandemic as it relates to mental health, and recommended steps to help support this group. The Hillsborough Health Department provided resources of local mental health providers in the area ranging from high school counselors to church counselors. Thirty minute zoom interviews were conducted, gaining background on the individual; gaining insight on their opinions about mental health during the pandemic in Hillsborough/Somerset County pertaining to affected populations, issues, and possible solutions.

Outcomes/Results: Of the three interviewed professionals, all stated the group they believed was impacted the most during the pandemic was young families (adults and children) as well as lower socioeconomic groups. Issues mentioned as possible causal factors of this disproportionate effect were accessibility to services (ex. location or technology), appointment availability, service affordability, and specified service access. Interviewees all agreed that Hillsborough/Somerset county shares the same issues observed nationally. Possible solutions provided were to create a network of information on providers of all specialized services, increase flexibility and availability of providers, affordability, and provide resiliency and crisis preparedness training.

Evaluation/Conclusion: Young families with small children and marginalized groups, specifically in lower socioeconomic areas, suffered greatly during the pandemic. Little to no access to services, or specified services, such as support for anxiety or depression, had immense impacts on the state of their mental health. Isolation through lockdowns and quarantines further exacerbated the effects of the pandemic, as some were unable to access services from a lack of technology such as devices or internet/WIFI, a pivotal means of communication during this period.
Title: Montgomery Township Health Department Compliance with Public Health Accreditation Board (PHAB) Standards and Measures

Name: Solomiya Mykolyk

Preceptors: Devangi Patel, Health Officer

Agency: Montgomery Township Health Department (MTHD)

Purpose: To analyze Montgomery Township Health Department accreditation compliance to improve administrative and collaborative processes that ensure positive community outcomes.

Significance: Local health departments play a vital role in the health outcomes of residents as they provide resources and health programs to decrease negative health effects. Public Health Accreditation Board (PHAB) established evidence-based standards to ensure the highest quality of care. According to PHAB, 289 local health departments achieved accreditation, with Montgomery Township Health Department as one (PHAB, 2022). By following the set of accredited standards, MTHD provides health education and resources to the communities they serve. This project explores how accreditation standards are implemented and their impact on public health.

Method/Approach: To ensure accreditation standards are being adhered to, the PHAB created a document with standards and measures that health departments need to implement into their administrative processes. The Community Health Improvement Plan (CHIP) and Community Health Needs Assessment (CHNA) are a part of the objectives that MTHD needs to accomplish; they partake in the planning, implementing, and evaluation processes of the needs assessment. After reviewing accreditation standards, a checklist was created with specific domains and measures that need to be in accordance with PHAB. The CHNA and CHIP included key components like collaboration, priority health needs, and strategic plans to address those needs over three years. Additionally, the checklist helped identify needed documentation of collaboration.

Outcomes/Results: The checklist highlighted domains 1 and 5 from the PHAB standards and measures document. Domain 1 requires MTHD to conduct and disseminate assessments that focus on population health status and issues facing the community, and domain 5 focuses on developing public health policies and plans. Each domain included four standards that MTHD needed to follow and provide documents of participation and collaboration. The checklist included measures for each standard, cross-referenced with Somerset and Mercer County CHIP and CHNA documents for proof of contribution, participation, and implementation of priority health needs stated in the documents. The MTHD successfully adhered to these standards by implementing measurable objectives identified in the CHIP documents.

Evaluation/Conclusion: The checklist is evaluated by completing objectives from Somerset and Mercer County CHIPS and participation in the collaborative process. As members of the steering committees in both counties, MTHD helped identify and collect community data. The health department hosted COVID-19 testing sites and weekly vaccination clinics, which fulfills priority area one that discusses COVID-19 impact on Mercer county residents. One of their focuses was increasing COVID vaccination rates. The CHNA reported that Pennington Boro had 91% of its residents vaccinated, which is higher than any other municipality in the county (CHNA, 2021). By reviewing compliance, this project identified health data that correlates with the increased effort of the MTHD to decrease disparities due to COVID-19.
Internship Abstract

Title: Multi-disciplinary cancer genetic counseling care for transgender youth

Name: Justin Najimian

Preceptors: Sherry Grumet - Director of the LIFE Center, MA, MS, LGC
Sandra D’Elia - Project Coordinator, MS, LGC

Agency: LIFE Center - Rutgers Cancer Institute of New Jersey

Purpose: To communicate the need for an established protocol to treat transgender youth seeking cancer genetic counseling services involving a multi-faceted care model from various health professionals.

Significance: Currently, 0.6% of adults identify as transgender in the U.S, with identification rates among youth ranging from 0.7% to 3.2% (Wilson et al, 2017). With the recorded rise of younger individuals identifying as transgender, there is a growing need for providers to be aware of the unique ethical and medical needs that transgender youth require regarding cancer genetic counseling (Zayhowski et al, 2019). The drafted perspectives paper provides an explanation of the different risks that can be associated with transgender patients and cancer, and a protocol for multi-disciplinary care in a cancer genetic counseling setting for transgender youth.

Method/Approach: A literature search was conducted using databases such as Google Scholar, PubMed and Rutgers Library. In order to refine the search, select keywords included “transgender”, “cancer risk”, “genetic counseling”, and “hormone replacement therapy”. The literature search was divided into two different sections: evaluating potential cancer risk as a result of hormone replacement therapy and acquired evidence for need of involvement from endocrinologists and social workers within in genetic counseling care and care for transgender youth. The literature search was then translated into a perspectives research paper in accordance with Transgender Health journal publishing standards and submitted for editorial review.

Outcomes/Results: The literature review yielded 13 different articles that were incorporated into the final paper that was produced. Cancer risk research highlighted the potential association between hormone replacement therapy (HRT) and lifetime risk for developing cancer, which is more pertinent to transgender youth who often start these regimens at younger ages, especially those who may have hereditary risk factors for cancer. Research into the role of endocrinologists revealed an existing professional relationship with genetic counselors for referrals for endocrine-related cancer syndromes and a reported reluctance to recommend HRT without ruling out hereditary cancer risk. Research into the role of social workers revealed their role in guiding transgender youth through processes of informed consent.

Evaluation/Conclusion: More research needs to be conducted to establish a link between certain types of HRT and cancer risk as the literature on the subject is scarce. The association is one that all transgender youth and their families seeking cancer genetic counseling services and considering HRT should be properly informed of before decisions are made on gender-affirming care. Endocrinologists and social workers must be included in the entire genetic counseling process in order to ensure that informed consent is achieved and the best possible understanding of cancer risk if acquired. The paper was not approved for publication at this time, but can be incorporated into a poster presentation for The National Society of Genetic Counselors annual conference and refined for resubmission to the Transgender Health journal or a different publication.
Internship Abstract

Title: Combating Cardiovascular Disease Prevalence with Testing Education

Name: Gabriella Naletilic

Preceptors: Supervisor: Francesca Aiello, Manager of Practice

Agency: Garden State Heart Care- Manalapan, NJ

Purpose: To analyze the results of CT Calcium scores in accordance with medical history to assess the success of preventative care and improve education of symptoms in the cardiology field.

Significance: Every 36 seconds, an individual in the United States dies of cardiovascular disease, making this the leading cause of death for men, women, and people of most racial and ethnic groups in the U.S (CDC, 2022). Symptoms in men and women are different and some may be asymptomatic making screening and testing essential. Women are less likely to feel common symptoms making the initiative to see a cardiologist in the lower end. According to a study performed by Dafina Petrova et. al (2015) and consistent with previous research, those of low socioeconomic status are less likely to get screened for cardiovascular disease and thus are seen to be at a higher risk for adverse outcomes and at higher risk. Experts have recommended regular screening for cardiovascular risk because it can reduce cardiovascular events without incurring any substantial harm to the individuals who participate.

Method/Approach: A retrospective review by medical assistant staff was completed to assess CT Calcium scores (which indicates coronary artery disease) in patients ages 45-75. Data from 100 patients that were seen throughout the week were analyzed and recorded into a spreadsheet. Patient past medical history was also dictated to see if this had any affect on their score. With this, past clinical notes, symptoms, and prior testing was also analyzed to see correlation. Any score above zero indicates a positive test detecting calcium deposits in the coronary arteries of the heart. A higher coronary calcium score suggests a higher chance of significant narrowing in the coronary arteries and a higher risk of future heart attack. A score of zero indicates no calcification and lower risk of heart attack.

Outcomes/Results: Of the sample size cohort (n=100), 62 patients (62%) had a CT calcium score that was above zero and 38 (38%) had a score of zero. Of the 62% of patients that had a positive CT calcium score test 54 (87%) were calculated to be overweight to morbidly obese and 31 patients (50%) were already noted to have mixed hyperlipidemia. 28 patients with a positive test felt symptoms of either shortness of breath, chest pain, or heart palpitations.

Evaluation/Conclusion: The majority of patients that were studied were concluded to have a CT calcium score above zero indicating coronary artery disease. With this nearly all of the patients with a positive test were overweight to morbidly obese. Less than half of patients felt symptoms indicating the importance of testing. Cardiovascular disease is one of the leading causes of death and this study shows the prevalence of early testing so preventative measures or lifestyle modifications can be taken to prevent a stroke or other negative cardiovascular events. Early testing should be made more known to prevent these events.
Internship Abstract

**Title:** Educating the Public about the Center’s Initiatives and Research

**Name:** Angel Nguyen

**Preceptors:** Angela Centellas, MPH & Patrice Harley

**Agency:** NJ Gun Violence Research Center (NJGVRC)

**Purpose:** To educate the public about gun violence research and bring awareness to the center’s initiatives through social media content & events like Rutgers Day (April 30th) and NJGVRC Research Day (May 20th).

**Significance:** Over 40,000 Americans die due to gun violence every year. In New Jersey, 465 people die by a gun in an average year, with a rate of 5.3 deaths for every 100,000 people. NJ Gun Violence Research Center at Rutgers combats this by developing research on gun violence causality and prevention and translating it into policies and programs to form safer communities. This project contributes to the solution by raising awareness of the center’s initiatives to educate the public and get more donors to continue to fund its research on gun violence.

**Method/Approach:** First, educational posts were created and posted on the NJGVRC’s Instagram and Twitter Page. The contents cover news and policies related to gun violence to educate the public. An Instagram page was created and included reposted posts from NJGVRC’s Twitter and Facebook accounts. In addition, new posts were created for Facebook and Twitter using programs like Hootsuite and Canva. Second, planning and development of promotional materials for Rutgers Day and NJGVRC Research Day were completed. Four artists were recruited to showcase their artwork related to gun violence at Rutgers Day and NJGVRC Research Day. Additionally, we developed a list of merchandise and brochures to give away on Rutgers Day. Finally, advertising services via Rutgers suppliers, newspapers outlets, radio stations, billboards and websites to spread awareness about NJGVRC Research Day was completed.

**Outcomes/Results:** The agency purchased 100 pens, 25 masks, 150 wrist strap key holders, 24 t-shirts, 150 hand sanitizers, 150 bags, and 3 banners for Rutgers Day. As for advertising, using Rutgers Suppliers was found to be more expensive than using advertising services directly from newspapers outlets, radio stations, etc. The agency approved using advertising services from Radio Station 98.3 and National Media. As for social media, the NJGVRC Instagram is at 13 followers and will take some time to gain more followers due to it being early in the social media site’s development. The response from Twitter has been good because the site already had more followers. Since taking a more active interest in the social media sites, there have been more views on newly created videos than typical posts. Infographics based on interpersonal violence articles recommended by the research team were made via Canva that may be posted on either social media or the NJGVRC website.

**Evaluation/Conclusion:** About 250 people attended the GVRC booth, and about 150 people registered for GVRC Research Day. Supplies were running out after two hours of Rutgers Day starting because the team allowed people to take one of each merchandise. As a result, the team went back to the School of Public Health building to get more supplies such as t-shirts, bottles, and books written by the head of the center. The most popular items were the t-shirts, bottles, books, and cable locks. Next year, the center should order double the amount of supplies needed to handle the number of people attending Rutgers Day and limit one or two merchandise per person. Additionally, the team will present their work on Student Research Day (May 6th) and attend GVRC Research Day (May 20th).
Title: Digital Health Startups and their Effects on Healthcare

Name: Sean O'Flaherty

Preceptors: Sara Chokshi, Research Coordinator

Agency: Health Information Technology Lab (HITLAB)

Purpose: To explore new startups and organizations and to evaluate/research how their innovations and products could better serve the digital healthcare sector.

Significance: “The US healthcare system is the costliest in the world, accounting for 17% of the gross domestic product with estimates that the percentage will grow to nearly 20% by 2020” (Institute for Healthcare Improvement, 2022). In addition to cost, the United States also has issues pertaining to access and quality. In recent years there has been a boom in the sector of digital healthcare, bolstered by COVID-19, paving the way for new innovations to try and address some of the issues in healthcare. “Providers and stakeholders are using digital health technologies in their efforts to: reduce inefficiencies, improve access, reduce costs, increase quality and make medicine more personalized for patients” (Food and Drug Administration, 2020). HITLAB works to identify startups, evaluate/research their products, and then put them in contact with consumers in organizations that would benefit. By allowing startups to launch their product into the healthcare sector some of these problems could be improved upon.

Method/Approach: In order to review the products, members of the team received prototypes or were given access to the software. Other more experienced members of the team did research on the products and evaluated their efficacy. Next, the tasks shifted to examine which consumers would benefit most from the products. Customer personas were created for each startup and their products. This helped to identify the specific consumers that would benefit from using these products and helped to highlight issues that may occur as well as considerations to make for different populations. Using HITLAB’s contacts, pharmaceutical companies were researched to see if they had clinical trials in stages 1 or 2 that were recruiting. This was important to make sure that one specific startup was put in contact with the consumers that they most wanted to target.

Outcomes/Results: Some of the products are still in prototype stages and are not being used yet in the field. Since the products are not being used in the digital health sector currently, an accurate evaluation of their efficacy in the field could not be truly evaluated. Success will be achieved when these products are being used to optimize outcomes, improve satisfaction, or increase the availability of healthcare to other communities.

Evaluation/Conclusion: Efforts will be successful when these products are being used in the digital health and healthcare fields exhibiting a pivotal role in optimizing outcomes. Future evaluation of the product will happen after the internship has been completed. There will be a symposium with all the members of HITLAB and everyone who has assisted on the project. During this time, any advancements or improvements that have been made will be discussed. Also, there will be a review of the products and everything that has occurred during the project. It is possible that evaluations such as surveys or quantitative evaluations could be done in the future.
Internship Abstract

**Title:** Employee Immigration Process Through H-1B CAP Season

**Name:** Teresa O'Keefe

**Preceptors:** Jaime Young, Senior Counsel Immigration

**Agency:** Tesla Inc.

**Purpose:** To assist Immigration Counsel and Specialists in the registration and application process of Tesla employees and assisting with employment authorization (work visas) within the United States.

**Significance:** There are specialized employees hired from Tesla Inc. that require employment authorization to work within the United States. The H-1B program, specifically, is run by the U.S. government’s U.S. Citizenship and Immigration Services, also known as “USCIS.” The H-1B programs allows U.S. based companies and employers to temporarily employ foreign specialized workers in occupations that require a unique knowledge and skill sets. The H-1B program is subject to the congressionally mandated cap of 65,000 H-1B visas, referred to as the “regular cap” program. There is also an exemption from the mandated H-1B cap program for those with advanced degrees, with a master’s degree or higher from a U.S. university or college. The number of individuals who are exempt based on U.S. advanced degrees is approximately 20,000. The Immigration team oversees the collection and completion of Tesla, Inc.’s registration and filing of petitions. It is important to work with data and keep complete records of Immigration files within Tesla to ensure employees can properly apply for work visas to assist with their continued employment authorization in the U.S.

**Method/Approach:** It is the Immigration team's job to prepare visa applications to register foreign national workers into the H-1B CAP lottery for the H-1B CAP program, the Immigration team must organize and audit information to ensure that employee registrations can be processed and entered into the randomized H-1B lottery system. For FY 2023, USCIS received 483,927 H-1B registrations. In the first round of selections 127,600 were selected (USCIS.gov).

**Outcomes/Results:** The H-1B visa application and registration program is active at this moment in time. The first lottery selection occurred around March 31st. The Tesla Immigration team is now working on filing petitions and gathering further information and materials needed from selected beneficiaries. A second lottery may occur later in the year.

**Evaluation/Conclusion:** Limitations include the randomized nature of the H-1B system that is set in place to select beneficiaries. The Immigration department needs be to be efficient, empathetic, and detail-oriented during the process to properly complete the process for employees. The annual completion of this work from the Immigration team will help ensure Tesla, Inc. employs individuals with the correct specialized skill set and knowledge for the job.
Internship Abstract

Title: Healthy Housing

Name: Olutosin Oladipo

Preceptors: Manuel Castaneda: Director of Community Health

Agency: Live Well New Brunswick

Purpose: To increase the number of New Brunswick residents that are aware of housing issues and provide information on resources and resolutions to keep their homes healthy.

Significance: Live Well - Vivir Bien New Brunswick is a health communications initiative committed to health promotion in the City of New Brunswick. This project falls into their “Be Well” and “Be Safe” focus areas; the general community’s safety and social determinants of health are important factors to improve health outcomes. Although Live Well has previously done work in this healthy housing sector, this project will bring a new focus on elements of home safety - In particular, fire prevention, proper air quality/well-ventilation, pest invasions, and home cleaning. It will also go further to provide easy and reachable solutions to the issues that are aforementioned.

Method/Approach: The Live Well - Vivir Bien New Brunswick campaign was focused on strengthening the public’s knowledge about the common dangers that can occur in a household and was dedicated to supplying information - tips - to the population on how to protect themselves. Each week there will be two flyers designed and created to bring awareness and resolutions to the specific housing issue that is assigned for the week - week 1 & 2 focus on home cleaning and maintenance, week 3 focuses on proper air quality, and week 4 focuses on fire prevention. The social media content will last for 4 weeks - resulting in 8 posts in total. The analytics from these 8 posts will be gathered from the various social media platforms and will be compared to previous content on healthy housing to assess the level of impact and engagement the public had.

Outcomes/Results: Analytics for this project were measured through the application “Later,” a social media content scheduling platform. For April, the data demonstrates that the social media engagement for healthy housing posts on Twitter and Facebook for the first two weeks was similar, ranging from 2-3% and then dropping to 1-2% for the remaining three weeks. The engagement on Instagram started at 3% the first week, then jumped to 6% the second week, and then went back to 3% for the last three weeks. The number of times the posts were viewed on Facebook and Twitter was similar - starting from 48-50 times for the first two weeks and then reducing drastically to 20-26 times for the last three weeks. Instagram’s impressions were powerful and stayed constant throughout the five weeks: 45-50. Healthy housing posts’ average reach - on all platforms - decreased from the beginning of the month to the end - averaging at 50 and then ending at 33.

Evaluation/Conclusion: Live Well’s Instagram had an overall positive change in performance in the healthy housing posts compared to the prior month’s similar posts. The reason is that the healthy housing content in April was put out twice a week. The first post focused on bringing awareness to an issue - fire safety, air quality, etc. - and the second one provided tips and solutions for these issues. Live Well can continue to make content for the New Brunswick community and give realistic and straightforward answers to the problems they introduce on all social media platforms to reach and engage with a larger audience.
Title: Brother 2 Brother / Sister 2 Sister (B2B/S2S) Evaluation

Name: Lola Olatubosun

Preceptors: Zaire Ali, Ed.M, MPH, Executive Director

Agency: The Urban Health Collaborative (TUHC)

Purpose: To analyze the need for high school programs with social and emotional learning-based curriculums and evaluate the effectiveness of the program in reducing ACE-induced negative behavior outcomes for at-risk high school students in NJ.

Significance: The School-to-Prison Pipeline (STPP), a “zero tolerance” policy was initiated by the U.S. education system in the 1980s to enforce the War on Drugs, which disproportionately impacts at-risk youth; Black and Hispanic students receive school suspensions at a significantly higher rate than their white counterparts. Camera (2021) found that students are being put in stricter schools, which increases the likelihood that they will be arrested by 3.2%. In NJ, during the 2018-2019 school year, over 50,000 students were suspended with there being a greater percentage of minority students being suspended than white students. Adverse childhood experiences (ACEs) cause at-risk youth to behave a certain way due to their environment and psychosocial interactions, heavily influenced by the pandemic, which caused an increase in discipline in school systems (Heyboer, 2021). Through the B2B/S2S mentoring program, TUHC works with at-risk youth using social and emotional learning-based curriculums to shift students’ mindsets and worldviews.

Method/Approach: A literature review, along with qualitative data were used to analyze the different interventions regarding education policies in urban communities, while hypothesizing issues found. The B2B / S2S mentoring program was developed to help alleviate the problems of STPP against students of color. Recruitment for the mentoring program via social media, word of mouth, and email marketing to get the message out directly to underserved youth throughout NJ. The four lesson domains of B2B/S2S are Emotion Regulation, Effective Communication, Active Listening, & Assertiveness, Harassment, Intimidation, Bullying, & Bystanders, and Goal Setting & Problem Solving. Through marketing efforts, around 5,000 students were reached, but there was minimal follow through in signing up for the mentoring program.

Outcomes/Results: The B2B/S2S curriculum was already developed despite there being a lack of follow-through for the program. Instead, the curriculum is spread through social media in an easy-to-use/easy to understand way. In addition, live workshops are recorded and uploaded to YouTube and The Urban Health Collaborative website. The expectation is that the information and data will reach students and begin the process of reversing and preventing the STPP.

Evaluation/Conclusion: Prior to the low number of signups, there was going to be a pre-test and post-test, as well as using vignettes, to evaluate the effectiveness of the material. Instead, the components of the curriculum were distributed through a series of public health campaigns using social media. The results of our campaigns indicated the following: there were 1,000 new users from January 2022 until present. Additionally, there were 500 direct interactions from these new users. Following the engagements, between the months of February and March, there was a steep increase of 390 additional users being active with TUHC social media accounts.
Title: Increased Risk of Myeloma in African Americans

Name: Rayelle Pagan

Preceptors: Stacy Kriezman, Senior Manager of Patient and Community Outreach

Agency: Leukemia & Lymphoma Society

Purpose: To spread awareness about Myeloma risk by using outreach techniques to contact different Black supporting organizations.

Significance: The CDC (2018) reported that Myeloma is twice as common and twice as deadly in Black Americans than in White Americans. Around 13 per 100,000 African Americans are diagnosed with Myeloma compared to 5.9 per 100,000 White Americans. As for the deaths, 5.6 per 100,000 African Americans die from Myeloma and only 2.8 per 100,000 White Americans die from Myeloma. Socioeconomic factors play a large role in the increased risk factors of this cancer. African Americans that are a part of a lower socioeconomic status may have issues receiving adequate health care that would help treat their Myeloma. In addition, evidence suggests that genetic susceptibility can put an individual more at-risk of being diagnosed with Myeloma.

Method/Approach: Between 02/10/2022 and 05/01/2022, research was performed to gather information about Black supporting organizations in and around Newark and other areas of NJ that have a higher percentage of members of the Black community. Connections were established with the Community Network Association (CNA) as well as the Black Cancer Disparities Impact Council (BCDIC), and other Black supporting organizations to educate them and provide them with information on the incidence and prevalence of Myeloma. This was done by communication through email and attending online webinars. Also, created a Myeloma fact sheet that addressed signs and symptoms, risk factors, as well as the disparities of Myeloma in the Black community. Leukemia & Lymphoma Society (LLS) attended Rutgers Day to hand-out these facts sheets and further information on ways LLS can help Black communities.

Outcomes/Results: Out of the 78 African American organizations that were identified, 36 organizations were sent emails explaining the risk of Myeloma in African Americans. Out of the 8 CNA organizations contacted, we were able to attend 2 of their webinars where LLS was connected with over 25 different professionals and organizations to briefly discuss the month of March being Myeloma awareness month and explain what Myeloma is and how it impacts African Americans. At Rutgers Day we handed out over 30 flyers with information about the signs and symptoms of Myeloma, as well as the incidence and prevalence rates of Myeloma in African Americans. We were also able to connect with 3 professionals/organizations, in-person, that are also participating in projects focused on helping the Black community, like the Rutgers Cancer Institute of NJ.

Evaluation/Conclusion: Through the research collected and the results of this project, it is clear that there is an overall lack of knowledge on this health disparity, especially in the African American communities. The organizations that LLS was able to connect with, and continue to connect with, were not aware of the drastic differences in the health outcomes from this cancer amongst the different racial groups. African Americans lack access to adequate healthcare, have higher rates of poverty, and lack education on their high-risk diseases. These factors contribute to the high rates of Myeloma in African Americans which is why LLS is doing what we can to help spread awareness to the Black communities.
Internship Abstract

Title: Evaluation of TI-ROSC Implementation in Sussex County, NJ

Name: Nina Paranjpe

Preceptors: Morgan Thompson, CEO of Prevention Links

Agency: Prevention Links

Purpose: To advance TI-ROSC program implementation in Sussex County, NJ and provide county-specific recommendations for systems transformation to a recovery-oriented system of care.

Significance: Between 2015 and 2020, drug overdose deaths in New Jersey increased from 16.7 to 32 per 100,000 people (KFF, 2021). To address this, thought has shifted to acknowledge that substance use disorders (SUDs) do not occur in isolation; in 2020, over 50,000 New Jersey residents discharged from SUD treatment suffered from another mental disorder (DMHAS, 2020). The Trauma-Informed Recovery-Oriented System of Care (TI-ROSC) framework requires that systems be person-centered and utilize the strengths of communities to target SUDs from prevention to recovery. Systems change at all levels of SUD intervention is necessary to implement the TI-ROSC framework and provide communities with the tools to address substance use disorders more effectively.

Method/Approach: A fact sheet using data from the 2020 Census, the New Jersey Department of Health Data Dashboard, and the New Jersey Drug and Alcohol Abuse Treatment Substance Abuse Overview for Sussex County, among other sources, was created. The fact sheet was circulated to Sussex County stakeholders by the New Jersey Coalition for Addiction Recovery Support (NJ-CARS) and used to develop interview and focus group questions. A Recovery Asset Map for Sussex County was built based on research into available services. The fact sheet, interviews, and asset map were analyzed for patterns. Recommendations were developed based on identified priorities for Sussex County.

Outcomes/Results: Systems change evaluation includes considering changes in “drivers of system behavior,” “behavior of system actors,” and “overall behavior of the system” (Cabaj, 2018). A primary issue identified was the high number (three percent or 35) of those who received SUD treatment in 2020 who were in the custody of the Child Protective Services. While stakeholder interviews suggest that social support for pregnant women is a successful initiative, places to consider continual change in system behavior is investment in youth and family support. Service evaluation in Sussex demonstrated that resources are primarily located in Lafayette, Sparta, and Newton townships. Continually, residents are often directed outside the community for recovery programs. Stakeholders agree that a lack of common knowledge about available services and transportation issues are often barriers. Actors may be able to align mission with action by increasing outreach about services, providing language training in spaces that offer tangential resources, and offering regular transportation to services. System behavior changes should target stakeholder alignment and utilize those in recovery to generate new initiatives.

Evaluation/Conclusion: Systems change recommendations made relating to this project were tied to statistical data and the perceptions of key informants that lived and work in Sussex County. Because this project was part of a larger implementation strategy, NJ-CARS will need to revisit these recommendations as more data near the end of the project’s one-year term. Future recommendations that affect the treatment of health of Sussex County residents must continually be evaluated for evidence-based roots and buy-in from relevant stakeholders.
Internship Abstract

Title: Transform Food Waste Management

Name: Richa Patel

Preceptors: Khushboo Jain, MS, Nutrition Educator

Agency: Second Harvest Food Bank of LV and Northeast PA (SHFB)

Purpose: To provide solutions for food waste that goes to landfill by incorporating the EPA’s food recovery hierarchy.

Significance: A total of 108 billion pounds of food is wasted in the United States each year. The equivalent of 130 billion meals and $408 billion worth of food each year. America throws away about 40% of its food (How we fight food waste in the US, n.d.). 72 billion pounds of perfectly good food goes to waste each year, food waste consumes 21% of landfill volume. In contrast, in the US, more than 37 million people, including 11.2 million children, and 5.5 seniors are food insecure. Therefore reducing food waste is an impactful avenue to increase food security as well as have a positive environmental influence. The Second Harvest Food Bank of Lehigh Valley and Northeast PA (SHFB) aims to reduce its environmental impact and transform the methodology we employ in food waste management.

Method/Approach: Utilization of the EPA Food Recovery Hierarchy which consists of 6 tiers: source reduction, feed the hungry people, animal feed, industrial use, composting and landfill. As part of SHFB’s efforts to employ the other EPA Food Recovery Hierarchy tiers we took the following steps: Reviewed the food disposal data for the year 2021, identified the top three contributing food groups towards waste, identified the average cost of current sanitation system, creating contact lists to aid in the development of a food waste management program. For the first contact list: the Feeding America National Activity Report (NAR) helped us identify food banks nationally, alongside SHFB, which produce 0% -10% landfill waste on a yearly basis. These food banks were contacted in an effort to learn about their Food Waste Redirection Transformation programs. Alongside this for the second contact list, we identified local organizations that would help redirect waste into the Animal Feed, Industrial Use or Composting tiers of the EPA Hierarchy. This included: 3 animal sanctuaries, 7 zoos, 8 local farms, 3 composting facilities, and 1 industrial facility.

Outcomes/Results: From our internal research we learn that Baby food, Dairy products and produce were the largest contributors to our food waste at SHFB. We also learnt that food banks our size nationally, employ a variety of waste management strategies; leftover food categories were composted, and animal feed was sourced through local farmer affiliation. Unfortunately, a majority of the local organizations that would help redirect our food waste from landfills had various restrictions on what they could accept as food donations. These restrictions included: strict animal diet, packaging or volume. Industrial & composting facilities could not accept food in any type of packaging (i.e. cans, glass, etc.). Industrial organizations with a weight minimum of 20-22 tons of waste will be picked up biweekly. We received a proposal from a food waste management company, NorthStar, to divert our food waste. NorthStar suggested using their anaerobic digester for the volume of waste we estimate to produce. The cost of service is comparable to our current sanitation costs.

Evaluation/Conclusion: The use of anaerobic digestion, combines industrial use and composting and produces a nutrient-rich slurry that improves plant/crop growth, lowers methane emissions from stockpiles (2030 Greenhouse Gas Pollution Reduction Targets), produces farm products such as animal bedding and high-quality fertilizer, and reduces pathogens (EPA, 2021). We acknowledge that a Food Waste Management program will aid in a positive environmental impact. Meanwhile, we also recognize that developing a food waste program takes an average of 6 months to identify potential stakeholders, followed by another 4-6 months to strategize at the operation in accordance with EPA guidelines at any facility. In the meantime our efforts to reduce food waste rely on diverting the foods to food insecure households before they are past a point of safe consumption.
Title: Maintaining Health and Precautionary Measures To Ensure COVID-19 Safety

Name: Sarth Patel

Preceptors: Dr. Hetalkumar Patel Pharm. D.

Agency: Unite Pharmacy LLC

Purpose: To assess the current guidelines regarding COVID-19 and establish procedures to ensure patients receive medication safely.

Significance: The ongoing pandemic for the past two years has put a strain on limiting the way retail pharmacies can function. Providing medication to at-risk patients is another obstacle for both the pharmacy and the patient. The American Pharmacist Association (APhA) issued a series of guidelines and measures for community pharmacies' reinforcing, strengthening, and preparedness to help assist front-line healthcare workers. Some common standards were to provide home deliveries to protect at-risk patients and mitigate the influx of patients in the pharmacy. It is important to enforce these practices and assess the safety measures based on how the patient feels towards the pharmacy taken on these guidelines.

Method/Approach: To create awareness of the ongoing COVID-19 pandemic, it is critical that we not just provide measures to help our patients obtain their medicine safely. To prevent further exposure to the COVID-19 virus, Unite Pharmacy had guard rails that would separate patients coming in, informative signs from the CDC/American Pharmacy Association, and multiple hand-sanitizer stations at the two doors and at the front desk. Besides these interventions, most patients are elderly and immunocompromised to receive their prescription medications without entering the store. They were provided with three options to protect these individuals: pickup up the medicines inside the pharmacy, or the prescription medication could be dropped off at the patient's home via pharmacist tech or third part of New Jersey Lawyers Service (NJLS) Courier.

Outcomes/Results: As we monitored the activity of individuals seeking in-person picking up medication, the majority have opted to receive their medication via outside pick up or medication transportation. During March, the pharmacy had 58 outside the pharmacy pick up and 136 via pharmacy technician delivery, and 46 via third-party NJLS. The volume per week fluctuated but maintained a consistent trend of patients utilizing these options, which provides convenience and safety to the patients. Many individuals offered positive feedback to individuals that participated in these options. Through the weeks, the pharmacy has noticed a steady increase in in-person medication pickup, as the majority of them had questions/concerns they may have.

Evaluation/Conclusion: Amidst an ongoing pandemic, many had concerns regarding ways to provide the most convenient and safe options so that patients can safely receive their medication. A majority of 75% of the sample population was satisfied with the possibilities taken to provide safe ways for patients to receive their medication. With only 5% dissatisfaction and 15% neutral or declined to answer. These measures provide a safe way for most at-risk individuals, such as elderly or immunocompromised patients, and positive feedback. The pharmacy also had a noticeable amount of in-person medication pickup, but most have been through the outside pickup or medication transportation.
Title: Minimizing the long term effects of glaucoma and cataracts by addressing patient concerns about seeing an eye doctor during a post-pandemic.

Name: Arma Patel

Preceptors: Mrs. Suzanne Park

Agency: Edison Ophthalmology Associates

Purpose: To ensure patients, especially those of age 55 and above, come back for their annual checkups and feel safe as the pandemic continues.

Significance: Edison Ophthalmology Associates is a private practice that specializes in treating patients that require diagnoses and surgery for glaucoma and cataracts as well as comprehensive exams and routine eye exams. Due to COVID-19 many of the patients have not returned for their annual eye exams which is a problem, especially for those patients 55 and older. At this age, cataracts start to become an issue and they are also the leading cause of blindness (CDC, 2020). To ensure the best treatment for patients they have to feel comfortable coming to the doctor’s office during the pandemic. This time has been frightening for this population and due to how COVID-19 has disproportionately affected them.

Method/Approach: Currently there are 51,124 patients in our system that have at least come to our office once in the last 10 years. We started analyzing the patients that haven’t returned back to the office since 2020 because that is the year the pandemic began. With the help of our system we were able to find out whether or not all the patients had returned in the last two years and if they were coming regularly. For those who had not we put them on a recall list. With the help of a new system the office has integrated, Televox, the office was able to send out reminders to set up their appointment this year, as a yearly eye exam is essential. With the reminder, messaging was also added that masks were still required in the office, are maintaining 6 feet distance between patient to patient and are requiring patients to wait in their car for their turns to maintain a safe and healthy environment.

Outcomes/Results: From this patient outreach program Televox Edison Ophthalmology Associates went from seeing an average of 1,223 to 1,504 patients, which shows an increase of 23% patient recurrence on a monthly basis from pandemic to post pandemic. The main concern addressed post pandemic was that certain patients could not be contacted using the Televox system because many patients within the demographics of 55 and plus in age did not use a smartphone and similar devices to receive automated reminder texts about their upcoming appointments. Therefore, the use of old-fashioned outreach marketing had to be used to contact those who could not be reached by a text message to remind them of their appointment time or to set up an appointment.

Evaluation/Conclusion: When interacting with patients when they came in for their visits most of them shared the concern of coming to a doctor’s office due to the pandemic and the risk of contracting COVID-19. Something else that had been brought up many times was that they had simply forgotten about their appointments or to make them due to their age, and with the reminders that they are now receiving it has made their lives easier. Their minds were also eased when they saw that COVID-19 protocols and safety measures were being taken. This shows the importance of comforting patients and listening to their needs to help them feel safe and want to return to the office.
Internship Abstract

Title: Social Media Tuberculosis Acknowledgment Discussion Campaign

Name: Kajal Patel

Preceptors: Rosaura Garcia, CHES, Health Educator II, Education and Training Department

Agency: Global Tuberculosis Institute (GTBI) - Rutgers New Jersey Medical School

Purpose: To synthesize, augment knowledge, and visibility by engaging the Global Tuberculosis Institute’s audience and sharing current TB data and barriers to TB elimination through social media.

Significance: Worldwide, TB is the 13th leading cause of death and the second leading infectious killer after COVID-19 (WHO, 2021). Only 1 in 3 people with drug resistant TB accessed treatment in 2020 (Soeroto et al., 2021). Previously, GTBI never implemented a social media campaign. Twitter chats are in demand for organizations to quickly share reliable public health information publicly. Social media campaigns serve as an effective method to share reputable and reliable public health information in digestible pieces. The Global TB Institute’s Department of Education and Training provides TB training and education for healthcare workers and public health staff nationally and globally. Research and promotion will allow people to understand, fund, and improve treatment.

Method/Approach: An all-day discussion was held following World TB Day on GTBI’s Twitter account following a Q&A format, providing a forum to engage learners with easy and quick discussion. Ten questions were shared and topics included stigma, lessons from COVID-19 to end TB, barriers to vaccines, biggest challenges to end TB, social costs of patients, strategies for providers to “think TB,” etc. An instructional how-to-join a Twitter chat flyer, GTBI-themed marketing flyer, and question graphics were used. Questions were posted hourly and provided insight on TB prevention, treatment, and care. TB activists and experts were invited to participate. Participants were asked to use the hashtag of “#morethan1day4TB.” A moderator monitored the event and actively retweeted and “liked” engagement.

Outcomes/Results: Participants including 3 physicians, 1 scientific researcher, and 3 survivors shared responses to the prompts. Respondents concurred breaking stigma is a collective role and a new vaccine is easily possible with political investment due rapidly-produced COVID-19 vaccines. Additionally, survivors highlighted TB heroes, including activists and physicians. GTBI’s Twitter profile visits grew to 12,400 (752%), mentions increased to 75 (630%), and tweet impressions increased to 14,300 (309%). March’s top tweet earned 3,383 impressions of the marketing flyer. The top media tweet was asking the audience to tag TB heroes for recognition. The top mention earning 160 engagements was an image of a child reading Vidya Krishnan’s book, “Phantom Plague” elucidating how TB shaped history. In March, GTBI’s following almost doubled with 28 new followers compared to 16 new followers in February.

Evaluation/Conclusion: Overall, these results indicate an increase in GTBI’s visibility and engagement. Newly identified topics for future education and training include TB funding, vaccine development, and reducing TB stigma. Health education webinars will train providers to break TB stigma, support TB patients, and treatment. Online training programs will improve TB investment, diagnosis, prevention, and treatment adherence for disease elimination. Providers will be educated on “thinking TB” to improve diagnosis. GTBI will work closely with global governments, researchers, and physicians to advocate investment for new vaccines. Chat engagement will gain greater respondents by inviting TB activists a month earlier. GTBI will repeat this campaign due to this year’s substantial engagement and effectiveness.
Title: Raising Awareness about the Covid-19 Vaccine for Children

Name: Kalindi Patel

Preceptors: Gina Stravic, Executive Director

Agency: Raritan Valley YMCA

Purpose: To plan and execute a series of children's Covid-19 educational programs for parents and guardians in collaboration with the East Brunswick Public Library.

Significance: In the United States, Covid-19 has resulted in over 12.9 million cases among children ages 0-17 and nearly 1,140 precious lives have been lost (AAP & CDC, 2022). Specifically, in New Jersey since the start of the pandemic there have been 14 Covid-19 deaths among children 0-17. Despite the vaccine being available for children 5-11 years old, they have a vaccination rate of only 30% compared to other eligible groups (NJ Department of Health). The Raritan Valley YMCA and East Brunswick Public Library are committed to improving community health through primary prevention methods. As a partnership both entities have recognized the need to carry out educational programs to ensure parents are equipped with essential information to make an informed decision.

Method/Approach: The educational programs were able to be carried out by a vaccine grant provided by the YMCA of the USA. Primarily, the Raritan Valley YMCA reached out to their community partner, the East Brunswick Public Library to plan, develop and implement 2 programs- a tabling event and a Zoom event. With the help of a Y board member, a pediatric infectious disease specialist was recruited to deliver information about the Covid-19 vaccine for children. Following these events, educational flyers were created using the CDC’s website as a resource to distribute at the tabling event. A promotional flyer for the Zoom webinar was developed to distribute at both facilities and post on social media to reach a broader audience. The flyer was also shared to the Y’s mailing list consisting of 7,000 recipients. Proper communication between the Y and library community and doctor was critical to ensure both programs operated successfully.

Outcomes/Results: To measure the effectiveness of the Zoom webinar a brief questionnaire survey was created. Participants were asked to indicate their level of agreement or disagreement using a scale with the following options-strongly disagree, disagree, neutral, agree, or strongly agree. More than half of the participants strongly agreed that they found the information presented to be helpful and gained new knowledge to make an informed decision. Furthermore, 56% of the participants stated that they feel more confident about the vaccine since it first became available. As a result of the Zoom webinar being recorded, the Raritan Valley YMCA was able to circulate it among other community members through various platforms. It was shared on the East Brunswick Public Library’s YouTube channel which has 32 views to date. It has also been posted on the Raritan Valley YMCA’s website and will be shared to other Y’s across the nation. As a result of the success from these 2 events the team was given the opportunity to present at a National YMCA meeting.

Evaluation/Conclusion: The ultimate goal of the project is to increase the vaccination rate among children ages 5-11. Through primary prevention and education for this population, it is the intention that the program will boost parents’ confidence when the vaccine for 6 months- 5 years becomes available.
Title: Insurance Coverages with Primary Care

Name: Kamal Patel

Preceptors: Pratim Pathak, MHA

Agency: Patel Healthcare LLC

Purpose: To analyze how having an insurance plan and not having an insurance plan can affect a patient’s treatment plan.

Significance: An individual’s treatment plan varies from others based on many different factors. One of the main factors is one’s insurance coverage that is based on an individual’s occupation, income, etc. Some patients have a higher copay than others when coming to see a primary care physician and some do not even have a copay at all, others are paying all out of pocket as their deductible is still not met. Patients are stopping care right after the primary care visit even though the physician referred him to get further testing done or to go see a specialist. Two patients may require the same treatment for the same medical issue but their care will vary greatly due to their insurance coverage and what they are willing to spend for healthcare.

Method/Approach: A random selection of five uninsured patients and five with private insurance were treated by the primary care physician. The patients were monitored at the checkout window on further appointments needed such as prescription for a specialist, a follow-up appointment, a prescription for medication, or no further testing to be done.

Outcomes/Results: Out of the five uninsured patients, four of them were asked to make a follow-up appointment due to abnormal blood test results and three out of the four patients declined to make a follow up appointment at the office during the checkout process. One of the five patients had normal blood test results and was not needed to be seen in the office again. From the five patients with various private insurances, all five were asked to make a follow up appointment and four of the five patients did on the way out of the office on the same day. The nine total patients were asked to come back for further testing to be done such as a X-ray, an EKG, and/or NST which are performed by a cardiologist that comes to the office Tuesdays and Fridays. The patients with private insurance had to pay an average PCP copay of $15, while the uninsured patients paid $50 each to see the primary care and will have to pay the same copay again for a follow up and pay out of pocket for the various testing to be done as well. Patients with private insurance were able to get testing done without spending nearly as much out of pocket as it was in the network and covered by the insurance.

Evaluation/Conclusion: Although all nine patients were asked to make a follow up appointment as requested by the primary care physician, the five uninsured patients were unlikely to make that appointment to get tested and receive the care they need. The uninsured patients are going to be monitored on whether or not they come back to get more testing done. As a result, insurance plays a huge role in preventing certain long term issues that can potentially be serious or life threatening. The insured patients will be able to be proactive and have early detection when it comes to their health problems as the uninsured patients will be reactive to their health problems as it might be too late. Health care costs are still high and especially during the pandemic, many families have lost their jobs and health insurances are struggling to afford the care they need.
Title: Healthcare Recruiting Software Implementation

Name: Krupa Patel

Preceptors: Robert Reyes, Lissette Cintron

Agency: Spring Hills Post Acute - Princeton, NJ

Purpose: To implement a pilot program for recruiting and onboarding new employees, and simplify healthcare job posting for human resource management professionals.

Significance: According to the Peterson KFF Health System tracker, nursing care facilities have seen a 15.0% drop in employment since February of 2020 (Wager, 2021). The purpose of Apploi is to combat the problem of a healthcare worker shortage by helping healthcare HR professionals recruit, hire, and onboard the right healthcare employees at volume and in a more efficient way. Apploi is especially effective because it streamlines the hiring process by enabling job posting across multiple sites and job boards. Between January 24, 2022 and March 14, 2022, Spring Hills Post Acute Care piloted the software to see if it improved staffing shortages.

Method/Approach: During the pilot, Apploi was used on a daily basis to view applications for jobs positions such as maintenance helper, housekeeper, receptionist, nursing, and activities assistant. As applications came in, interview requests were emailed to qualified applicants. Interviews were scheduled and a confirmation email was sent that included the office’s address and contact information. If the administrator, department director, and the HR coordinator wished to move forward with the hiring process, Apploi was used for the onboarding process.

Outcomes/Results: With the launch of Apploi at Spring Hills Post Acute Care, the total number of new employees accumulated to 25. Throughout the four month period between January 2022 to April 2022, there was a steady increase in the number of employees in each department. During the months of January and February, the front desk gained 1 new receptionist, the maintenance department got 2 new helpers, and the housekeeping department gained 2 workers. Throughout the months of March and April, the activities department got 2 new assistants and the nursing department gained 9 new nurses which consisted of CNAs, RNs, and LPNs. Additionally, there were 9 new professionals hired to work in the administration.

Evaluation/Conclusion: Being able to work on the new healthcare recruiting system first-hand was very beneficial because it allowed for a greater understanding of the effects that a healthcare worker shortage has on a company. At first, it was difficult to fill the vacant positions because of no-show interviewees and applicants who turned down full-time offers because of schedule conflicts. However, in the end each department received the help they needed in order to make their workdays go by more efficiently. Spring Hills Post Acute Care will not be continuing its use with Apploi in the future because of a management acquisition that will require the utilization of a different recruiting software, but the pilot was successful overall.
Title: Underage Tobacco Sales during the COVID-19 Pandemic.

Name: Reenal Patel

Preceptors: Christopher Ackerman, MPH - Research Project Manager

Agency: Rutgers Center for Tobacco Studies

Purpose: To compare Rutgers Center for Tobacco Studies NIH-funded covert tobacco purchase data with FDA tobacco retailer compliance inspection data to determine the effects of the COVID-19 pandemic on underage tobacco sales in New Jersey.

Significance: Although there have been significant declines in cigarette smoking in the United States, concerns about youth tobacco access remains. Raising the minimum age to 21 years old to purchase tobacco products is a successful strategy for combating underage tobacco use (Campaign for Tobacco-Free Kids, 2020). However, enforcement of age-of-sales policies was limited by the COVID-19 pandemic. Rutgers Center for Tobacco studies conducted a research study with 18-20 years olds to investigate retailer compliance with tobacco age-of-sale laws in New Jersey before (2019) and during (2021) the pandemic. The center's research identified a need for enhanced enforcement of age-of-sale policies to minimize youth access.

Method/Approach: Records from FDA compliance check inspections of tobacco product retailers were analyzed for: 1) Total number of inspections and 2) inspections resulting in a violation involving a minor in New Jersey from 2019 to 2021. Rates of FDA violations involving a minor were compared to results from Rutgers Center for Tobacco Studies Tobacco 21 (T21) study. The T21 data was analyzed for: 1) total purchase attempts and 2) successful purchase attempts.

Outcomes/Results: Before the pandemic in 2019, there were 4,891 FDA inspections resulting in 569 stores with a violation involving a minor (11%). Rutgers T21 study reported 780 purchase attempts in 2019, with 330 successful purchases (42.3%). During the pandemic in 2020, there were 1,051 inspections conducted by the FDA, resulting in 139 stores with a violation involving a minor (11%). The T21 research study was suspended in 2020 due to the COVID-19 pandemic. Similarly, in 2021, 627 FDA inspections resulted in 177 stores with a violation involving a minor (28%). Rutgers T21 reported 842 purchase attempts in 2021, resulting in 573 successful purchases (68.1%).

Evaluation/Conclusion: This study investigated tobacco retailer age-of-sale compliance before and during the COVID-19 Pandemic. Significant differences were found when comparing FDA compliance data to the T21 research conducted by Rutgers CTS, specifically with rates of tobacco retailer compliance. The number of FDA compliance checks decreased during the COVID-19 pandemic, and retailer non-compliance increased, as seen in the FDA Compliance Database and Rutgers T21 Study. Although FDA inspections involving retailer compliance with tobacco age-of-sale laws decreased due to the COVID-19 pandemic, more research is needed to identify ways to keep existing public health needs a priority.
Internship Abstract

Title: Promoting Blood Cancer Resources Among the Hispanic Community

Name: Eliana Perez

Preceptors: Carisa Almquist; Patient and Community Outreach Manager

Agency: The Leukemia and Lymphoma Society — Pacific Northwest Region

Purpose: To raise awareness of Spanish-language resources for blood cancer patients and caregivers, from the Leukemia and Lymphoma Society (LLS), among the Hispanic community in the Pacific Northwest region.

Significance: Approximately every 3 minutes, a person in the United States is diagnosed with leukemia, lymphoma, or myeloma (LLS). Hispanics, specifically, are often diagnosed at a younger age and have decreased survival rates compared with non-Hispanics due to language barriers, lack of education, and reduced access to health care (Bencomo-Alvarez et al., 2021). LLS provides Spanish-language resources and services to address such needs of the Hispanic community. This project will use outreach strategies to educate the Hispanic community on the different diagnoses of blood cancer, tips for coping with the emotional and financial impact of a diagnosis, the terminologies used in blood cancer treatments, and access to quality care and resources available at LLS.

Method/Approach: A “Facebook live” Spanish-language program was organized to educate the Hispanic community on several issues of great importance to cancer patients. To increase the registration and participation outcome of the program, I researched a list of multiple entities for contact via phone and email. It consisted of 20 community-based organizations and health centers and 600 blood cancer patients and caregivers, 177 of which I was responsible for contacting, that identify as “Hispanic,” which was then exported to a spreadsheet. The organizations and health centers were emailed a flyer of the program and were further encouraged to share it with their network of collaborators that they believe would benefit from it. Phone calls were made to the blood cancer patients and caregivers to discuss information about the program and confirm their interest to attend.

Outcomes/Results: Of the sample size cohort (n=620), 62 people (10%) registered for the program and most of those (n=60, 97%) attended the program. The total number of registrants may seem low in comparison to other LLS programs, but as of April 21st, 2022, the program has had 3.6K views with 43 likes and almost 100 comments. It is important to know that the majority of the patients that were contacted either had phone numbers that no longer were in service or did not answer our calls and were instead left voicemails with details of the program. My work towards the program is contributing to the bigger picture of forming partnerships with key stakeholders serving Hispanic communities.

Evaluation/Conclusion: Anyone with a Facebook account can still view the program, which helps reach people beyond those that registered. Engagement with an LLS information specialist, registration at local education/support programs, and satisfaction surveys will serve as effective strategies to enhance the availability of Spanish-language resources, offered by LLS, for blood cancer patients. Ongoing partnerships with other key stakeholders will occur to ensure more Hispanics residing in the Pacific Northwest region will be reached.

Abstract References
Internship Abstract

Title: Assessment of the Oral Health Habits of the Patients at A.P. Sinesi DDS

Name: George Petkanas, Intern

Preceptors: Akis Sinesi, DDS, Head Dentist

Agency: A.P. Sinesi DDS

Purpose: To analyze the oral health habits and attitudes towards dental care among patients at A.P. Sinesi DDS and propose modifications to improve oral health outcomes.

Significance: Oral hygiene is a crucial factor regarding an individual’s health and lifestyle. Many oral diseases could be avoided with good oral hygiene and frequent trips to the dentist office. However, the frequency of patient’s following up with appointments continues to be noticeably low. The New York City Department of Health and Mental Hygiene (2015) found that approximately 2.5 million adult New Yorkers (40%) had no preventive dental visit in the past year. Dental visits are one of the biggest preventative factors in terms of being diagnosed with oral disease. The absence of such a large proportion of the population highlights this public health crisis and the lack of care that many people are experiencing. Understanding the oral health habits of patients can help with the creation of intervention strategies aimed towards increasing patient turnout and improving oral hygiene habits.

Method/Approach: Patients from A.P. Sinesi DDS serve as the study group for a clinical research project involving oral health habits. Two different multiple-choice surveys were developed; one for adult patients and the other for pediatric. Parents filled out the survey for their children if they were under the age of eighteen. Each survey contained eight questions with only five being the same between the two groups. Before distributing the survey, patients were approached and asked if they wanted to participate in the study. If consent was granted, the doctor then explained the purpose of the study. The data was collected over a five-week period and recorded using Excel spreadsheets. Surveys were confidentially discarded after data was recorded to protect patient privacy.

Outcomes/Results: The survey was completed over a five week period. A total of 61 adult surveys and 39 pediatric surveys were collected from the study population. Responses were recorded to a spreadsheet for the ability to observe the distribution between all patients. The completed surveys show substantial disparities in individual’s oral health habits. These responses display the need for improvement of oral health habits amongst the population. The data found will allow clinicians and assistants to direct their attention to the most popular detrimental oral health habits. Acknowledgement from health care providers will allow them to better educate their patients and prevent any oral diseases that may arise from the absence of these habits.

Evaluation/Conclusion: After the data is analyzed it will be shared with the clinicians and assistants at A.P. Sinesi DDS. Using the information, the team at this dental office could have a better understanding of what the major problems of their patients are. This will allow the team to direct their attention to these issues and look to educate their patients in these specific fields. Sharing the importance of good oral hygiene in both adults and children will potentially create better oral health habits and improved patient return rate amongst the patients that attend this office.
Title: Career and Professional Development Program for RWJBH’s EPIC Training Team

Name: Nick Phillips

Preceptor: Maria A. Moffa, Assistant Vice President of EPIC Training

Agency: Robert Wood Johnson Barnabas Health (RWJBH)

Purpose: To design a continuing education and professional development program for Credentialed Trainers (CTs) interested in developing their skills and achieving career goals.

Significance: The EPIC training team at RWJBH consists of CTs, Principal Trainers, and various managerial positions. The common belief is that a CT moves from a principal trainer to an analyst position. While this may be the case for some individuals, it isn’t the only option for individuals seeking professional development. Professionals seeking to improve their skills and develop their knowledge require challenges that push their capabilities. Furthering an individual’s responsibility may be daunting but rewarding when there’s a tangible increase in skill and experience. Monetary compensation and promotions are not sustainable options for retaining employees. Professionals strive for opportunities to improve their skill set, knowing their commitments are returned over time. To retain employment, professionals need to be offered rewarding and challenging tasks.

Method/Approach: Three programs were created: Training Operations, Management and Leadership, and Principal Trainer/Analyst. Four subsections were made for each category: professional development, career development, activities, and course offerings. Interviews were conducted with key opinion leaders on the team to design significant changes. The program was developed based on the feedback received. Once parties agreed on the design, the final program was created.

Outcomes/Results: The major changes introduced in the program are a newly promoted position, a mentorship program, and a structured certification program. The program introduces a new senior-level position called “Senior Credentialed Trainer.” Current CTs who excel in their position may be considered for promotion. The position would entail more responsibilities but acknowledges the individual as an asset and resource on the training team. The mentorship program is an official handoff from when a new hire finishes their onboarding. Freshly onboarded CTs will be provided a mentor who will further situate them into their new role. The certification program allows credentialed trainers who have been with the company for six months to complete a “proficiency” and anyone who has been in the team for nine months to complete a “certification.”

Evaluation/Conclusion: An organization that invests in its employees has a better chance of retaining them. A report conducted by LinkedIn shows 93% of employees would stay in a company for longer if the company invested in their career development. A study conducted by Employee Benefits News discovered the average cost of losing an employee is 33% of the employee’s annual salary. Employees are an investment to an organization with direct effect on ROI. This program encompasses the initiative RWJBH is taking to develop its employees and provide growth opportunities. The programs limitations come down to its initial implementation and buy-in from its intended audience. Through trial and error the program will continue to develop and maintain focus on providing its recipients with a practical, organized resource for career and professional development.

Citations: https://docs.google.com/document/d/1xLqawpbGrRBFaFF-h3RWjCuWUQVOxkQSA84xw18sgkPw/edit?usp=sharing
Internship Abstract

Title: Healthcare’s Institutionalized and Systematic Racism: The Effects On Both Patients and Workers

Name: Hanan Pickett

Preceptors: Annie Steelman

Agency: RWJBarnabas Health, System Strategy

Purpose: To smoothly transition the 2021 RWJBH Ending Racism Together (ERT) Strategic Plan from its planning phase to its implementation phase.

Significance: One of the roles of the System Strategy team at RWJBarnabas Health is to strategically observe operations from the inside out and translate strategic plans into easy to follow action plans, which lead to better outcomes. The RWJBH ERT Strategic Plan addresses provider/employee behavioral issues with the goal of creating an unbiased, safe space that caters to all races. The plan was created in response to the environment where Black communities face a multitude of healthcare disparities including access to quality care, health insurance, and PCPs/Specialized physicians due to a range of social determinants. Institutionalized racism and racial bias also contribute to unequal care. The process to assist the health system in transitioning the ERT Strategic Plan was a collaborative effort between the RWJBarnabas Health Office of Social Justice and Accountability and the System Strategy teams.

Method/Approach: The strategic plan consists of four goals that address healthy and sustainable communities, high-quality patient care, an innovative and efficient delivery system, and an antiracist and inclusive culture. High-level strategies were also created as part of the strategic planning process. Our task was to add the necessary level of detail to the implementation plan so that it can be successfully deployed and operationalized across the RWJBarnabas Health System. First, we reviewed the plan in detail and held multiple meetings with the Social Justice and Accountability team to gain a clear understanding of the plan, its drivers, and its vision for the future. Then, we took the goals and strategies from the plan and formulated one-year objectives, metrics, tactics, and responsibility for each of the four goal areas. For example, the first goal area (healthy and sustainable communities) addressed late-stage breast cancer in Black and African American women, maternal complications, diabetes, sickle cell disease, pulse oximeters that may accurately gauge reading on all skin tones, and Medicaid coverage.

Outcomes/Results: Action plans for Goal 1 were created, including six objectives, 11 metrics, and 32 tactics. Responsible departments across the health system were identified for each tactic. The action plan for Goal 1 was reviewed with the Office of Social Justice and Accountability team for content and accuracy. Action plans for Goals 2, 3, and 4 were drafted and will be further developed over the next three months.

Evaluation/Conclusion: The RWJBH ERT Strategic Plan is a significant step forward in RWJBH’s organizational shift to become an antiracist organization. One of the first of its kind in the United States, the RWJBH ERT Strategic Plan addresses health disparities, racism, and discrimination within its healthcare settings and facilities. It is clear that RWJBH is committed to this plan to welcome not only patients but also employees into an antiracist environment through behavior conducted, policies created and re-evaluated, and practices displayed in the workplace.
Title: Social Media Analysis for Increased Audience Engagement

Name: Mrinalini Pillai

Preceptors: Direct Supervisor: Shannon Bishop-Green, Senior Director

Agency: McCabe Message Partners

Purpose: Identify and implement pivotal tactics and trends yielding increased engagement on the Align for Health Facebook page.

Significance: Within the past decade, cross-sector collaboration has served as a catalyst for the improvement of population health and health equity (Hamer & Mays, 2020). For national initiatives like Align for Health, a program established by the Robert Wood Johnson Foundation to promote the collaboration between public health, social services, and healthcare, social media can serve as a powerful tool to promote the benefits of cross-sector collaboration (Shawky et al., 2019). By identifying trends on an existing social media platform, engagement with a targeted audience can be fostered. This project seeks to compare the performance of the Align for Health Facebook page within the last 2 years as a method of increasing outreach to public health officials and policymakers.

Method/Approach: Data was compiled from all posts on the Align for Health Facebook page from January 2020 to December 2021 through Sprout Social and Meta Business Suite. The posts were initially compared by collecting total impressions, total engagement, net reactions, and other interactive social media analytics. Posts published in this period were then analyzed based on the type of media content shared in the post. These forms of media include images, videos, and links to external sources. Data regarding the demographics of the current audience, frequency of engagement, and page growth were also collected and analyzed. Lastly, data was compiled comparing organic and paid social content.

Outcomes/Results: Based on the data collected from the Align for Health Facebook page, there were a total of 0 paid posts in 2021 and 2022, while 3 were noted in 2020. The 3 paid posts accounted for 96% of all engagements for 2020. Between January 2020 and December 2021, total impressions decreased by 96.1%, while total engagements and net reactions decreased by 94.4% and 85.1% respectively. Though the number of engagements decreased within this period, the overall engagement rate increased by 42.7%. Of the 280 posts published in the span of 24 months, 16 posts contained videos, 140 posts contained external links, and 124 posts contained images. Since 2020, Wednesdays and Fridays experienced the greatest frequency of posts published, while audience engagement was found to be highest on Tuesdays. It was also found that the majority of the page’s audience is most active around 8:00 pm EST. In terms of growth, there was a 98.9% decrease in users reached with a 40% decrease in net followers. It was also found that the majority of the Facebook page’s audience is comprised of women over the age of 65.

Evaluation/Conclusion: The results obtained indicate that investing in paid posts, publishing content on Tuesdays, posting around 8:00 pm EST, and posting content relevant to the majority audience are effective tactics in increasing overall engagement on the Align for Health Facebook page. These results were shared with the Vice President of the public relations firm and were immediately implemented on the Facebook page. Continuous monitoring of the page is necessary to determine the success of the implementation of the proposed tactics in fostering increased engagement and outreach to public health officials and policymakers.
Internship Abstract

Title: Emergency Department Registration Assessment

Name: Lesley Pimentel Sanchez

Preceptors: Mary Kelso - Regional Director of Patient Access

Agency: Robert Wood Johnson University Hospital New Brunswick

Purpose: To assess the performance improvement plan developed and examine the success of the various ways in which the registration team contributes to an efficient patient throughput and patient experience in the emergency department.

Significance: The average wait time in the Emergency Department in the United States is about 40 minutes. More than 22 million ER visits involved more than an hour of waiting in 2017. Robert Wood Johnson University Hospital has set up a process by which every department works together to reduce the waiting time for the patient, either for discharge or admission to the floor. Registration is the first step in the process upon the patient's arrival. When there is inefficient communication in the ED, it can have additional repercussions to the patient flow. Although the patient access representative team is not able to complete the registration process until the physician has done their initial evaluation on the patient, an efficient arrival process is important. After a physician's evaluation is done, then the registration can be completed, and should be completed by the time the physician enters discharge orders.

Method/Approach: The hospital developed an interdisciplinary ED throughput team to evaluate the current process and arrive at streamlined approaches to improve overall throughput times. This team is responsible for meeting and working collaboratively on the goal of improved patient throughput. The patient access team are the 1st people that a patient sees when they arrive at the emergency department. Which makes it highly important that the patient access is giving the patient the best customer service in a timely manner. After interviewing the management team in the patient access department that is part of the ED throughput team, some of their suggestions were to establish better communication between the departments (clinical staff, bed management and patient access). In addition, they suggested establishing a standardized training protocol for the staff so that they can easily work in every area in the ED and ensure that everyone has received the same education and messaging. As the hospital is moving to Epic on 6/4/22, that process is already underway. The Epic training is standardized, and everyone is required to attend training. Ensuring that the managers are able to schedule the adequate staffing is a necessary operational function and contributes to efficient and effective patient throughput.

Outcomes/Results: After making it an interdisciplinary patient centered approach the management team was able to bring the registration average time down from an average of 7-10 minutes to an average of 5 minutes. As well as having registrars that are well trained help bring the registration time down. The improvements to the admissions registration process have contributed to an efficient bed placement process since the admitting team has been working in the emergency department.

Evaluation/Conclusion: The ED throughput team has divided their improvement project in phases. The team is currently focused on the CIA area, which is the treat and release area. The team was able to see improvement in the patient registrar time after solely focusing on the staffing model, the skill of the registrar, and an interdisciplinary patient centered care. In order to see improvement, it took different departments to work together as a team and to communicate with one another.
Title: Literacy Promotion for Latinos Study

Name: Mariana Posso

Preceptors: Network Director: Jennfier Hemler, Research Assistant  
Program Director: Silvia- Perez Cortes, PhD

Agency: Department of Family Medicine and Community Health, Research Division

Purpose: To transcribe and analyze the linguistic output of parent-child interactions and find effective strategies to reduce disparities in literacy promotion amongst low SES Latino families.

Significance: According to Healthy People 2020, literacy and language are the precursors to low educational attainment, one of the 5 domains classified as a social determinant of health. In 2007, Sentel and Braun looked into a community survey conducted in California to compare health literacy amongst different ethnic groups. It revealed that Latino respondents had the second lowest prevalence of health literacy. The Literacy Promotion for Latinos Study at the Pediatrics Department of Robert Wood Johnson has recruited participants from local clinics to supplement guided parent-child interventions through shared readings. By analyzing the parent-child behaviors, researchers can calculate the measure of linguistic proficiency. Improving social skills and language proficiency during early childhood development should help reduce the disparities seen in low health literacy amongst ethnic minorities.

Method/Approach: In a 3 arm randomized clinical trial, investigators will test mechanisms of learning interventions for families. A total of 630 low-income Latino participants from local health centers will be assigned to an arm and evaluated at the age of 9 months and followed up at the age of 18 months. The first arm is reach out and read (ROR) which is commonly used in pediatric care. The second arm is ROR with text messages that are meant to serve as reminders. The third arm combines ROR, the text messages, along with access to resources to reduce poverty. These 3 arms will allow investigators to test their hypothesis that the implementation of ROR with additional commodities will result in higher scores based on social and emotional development of the child. Investigators will also gain a better understanding of the socioeconomic barriers that parents experience and how it impacts their child’s cognitive development.

Outcomes/Results: A randomized control test was used by researchers in a longitudinal study to gather the mean length of utterances from shared readings in recordings. A child’s language development is based on a count of individual morphemes in each utterance. In a 18 month old participant’s recording, a total of 69 utterances were transcribed and divided by the number of morphemes. Using an excel spreadsheet, the total MLU of the participant came out to be 4.88. However, after a year follow up, a second interview would be required to compare the child’s MLU to the age equivalent mean of language development.

Evaluation/Conclusion: Observations from the recordings have indicated that parental input, code-switching, and language are triggered by the reading environment. Limitations for the MLUs from a theoretical perspective, include the presence of another parent or child, technology, or the type of book selected. Trends have shown that the children tend to become distracted during shared readings when another person in the activity. This behavior was also taken into account when transcribing videos that had the presence of televisions, cellular phones, and other electronics. During readings, it was observed that bilingual books had a relation to greater rates of engagement from the child.
Title: Ergonomics for Your Health Educational Program

Name: Saira Prasanth

Preceptors: Claudia Zurlini, Senior Coordinator II

Agency: Hospital for Special Surgery Education Institute, Community Education & Outreach Department

**Purpose:** To develop a program to increase skills and knowledge of ergonomics for sitting, driving, and other occupations needed to promote orthopedic health in diverse communities.

**Significance:** According to the U.S. Department of Labor’s Occupational Safety and Health Administration, or OSHA (n.d.), work-related musculoskeletal disorders (MSDs) are one of the leading reported causes of restricted or lost work time. Creating an ergonomic setup that allows for proper posture and movement can reduce the risk of workplace injuries and musculoskeletal disorders (MSDs) (U.S. Department of Labor, n.d.). According to Kumar et al. (2020), MSDs account for approximately one-third of all health-related absences among workers in industrialized nations. Radauceanu et al. (2019) found long driving times and perceived driving-related physical constraints to be associated with low back pain among male postal workers. Kumar et al. (2020) show that MSDs can be prevented through training on vehicle ergonomics. This evidence suggests that occupational vehicle drivers are exposed to significant risks, and that education on ergonomics can reduce the risk of MSDs and lost productivity across various occupations.

**Method/Approach:** Email outreach was conducted to request collaboration with three HSS physical therapists with expertise in ergonomics in developing educational video content. The live program, titled Ergonomics for Your Health, was marketed with a short description through the Education to Empowerment program brochure. An Eventbrite page was developed and published for program registration. A webinar brief will be developed to facilitate discussion by panelists. Panelists will be secured from HSS staff, with the HSS Body Mechanics Coordinator identified as a potential speaker.

**Outcomes/Results:** The final program will be held on May 18, 2022 as a 1-hour virtual lecture over Zoom. 19 participants are currently registered. Program objectives aim for at least 90% of participants to gain knowledge of the role of ergonomics in musculoskeletal health and gain skills to improve their own workplace setup by identifying risk factors and using ergonomic principles. Participants will be able to use the chat and Q&A features on Zoom to pose questions to panelists. The lecture will be recorded and posted to the HSS YouTube channel as enduring content.

**Evaluation/Conclusion:** Impact evaluation will utilize an online survey developed in Alchemer. Survey questions will use Likert-style response choices to measure participants’ level of satisfaction, self-management, and likelihood of recommending the program. Open-ended questions will allow participants to provide qualitative feedback. Four post-test multiple choice knowledge questions will be developed to measure knowledge of ergonomics. Results will be examined again mid-year and end-of-year to compare outcomes and plan Summer or Fall session programs.
Title: Larval Bioassay of Skeeter Solution on *Cx. quinquefasciatus*

Name: Shealyn Prouflias, Intern

Preceptors: Direct Supervisor: Dr. Whitney Qualls, Scientific Manager  
Project Supervisor: Kai Blore, MPH, Biological Technician

Agency: Anastasia Mosquito Control District of St. Johns County

Purpose: To evaluate the biological activity of a mosquito larvicide exposed at various concentrations for 72 hours within its activity range, and mortality is recorded.

Significance: Mosquitoes are one of the deadliest creatures and a major public health hazard. Each year, mosquito-borne illnesses kill millions of people worldwide (Asaduzzaman et al., 2021). More than half of the world's population lives in areas prone to mosquito-borne disease. Dengue, chikungunya, yellow fever, Zika, malaria, filariasis, Japanese encephalitis, and West Nile fever are all mosquito-borne illnesses that significantly influence human health. Larval mosquito management has long been considered the most successful technique of mosquito control since the juvenile stage is limited to water bodies and easier to target than adult control, which relies on large-scale chemical spraying.

Method/Approach: *Culex quinquefasciatus* mosquito eggs were hatched in insectary at typical circumstances of 80±3°F, 75% humidity, and day:night cycle of 14L:10D. The larvae were collected and employed in a larval bioassay when they molted to the second (2nd) instar. Using distilled water, four (4) different quantities of GroPro's Garlic oil, *Heterohabditis Megidis*, and soybean oil solution, "Skeeter," were created in the laboratory. Ten larvae were dropped into a 250 mL clear plastic cup containing 100 mL of each concentration of the fluid using a dropper. To determine mortality, seven (7) replicates were performed for each concentration. All experimental cups were put on a tray and kept in an incubator at 26°C and 80% relative humidity.

Outcomes/Results: The percentages of larval mortality were determined 24 hours, 48 hours, and 72 hours following exposure to the four (4) different Skeeter solutions. Mortality increased with the increase in solution concentration (ppm) at any time period of exposure during the experiment. At twenty-four hours, both the 0.001 and 0.0001 concentrations resulted in 100% death. The 0.00001 concentration resulted in 75.7% death, whereas the 0.000001 concentration resulted in less than 10% mortality. The lesser amounts, on the other hand, resulted in 100% death after 72 hours. Since all four doses resulted in 100% mortality, a Probit analysis could not be done to calculate the LC50 and LC90.

Evaluation/Conclusion: At all dosages, the Skeeter solution had substantial larvicidal activity against *Cx. quinquefasciatus* with 2nd instar larvae. Based on the gradient of positive relationship between mortality and concentration, Skeeter may be a suitable mosquito larvicide. The formulation's usage of a specific juvenile nematode that hunts out mosquito larvae may be responsible for the high fatality rate. The juvenile nematodes penetrate the mosquito larvae through multiple small pores and quickly release a symbiotic bacteria into the larvae's circulation. When an insect enters the bloodstream, it develops septicemia and kills it. Additional testing, however, may be necessary to confirm this.

[Link to source](https://rutgersconnect-my.sharepoint.com/:w:/g/personal/srp254_scarletmail_rutgers_edu/EbQPo7QU09xEkusynNoKOhgB8YgmC4PuYDzYmqlMLXWSuw?e=KcSuX1)
Title: Evaluate Health Data Quality Across Different Healthcare Agencies

Name: Shifan Qian

Preceptors: Wenjin Chen, Director of Academic Computing, Division of Bioinformatics

Agency: Rutgers Cancer Institute of New Jersey

Purpose: To compare health data results across multiple data-sharing partners and analyze data quality from different terminology and definitions to help combine data across different agencies.

Significance: Combining health data from different sources can be challenging since the methods and definitions used are not in a standard form. Detailed clinical data are mostly generated by electronic transactions in operational systems that are not primarily intended for research and secondary analysis. It is necessary to develop a unified data quality terminology and definitions to help combine data across different agencies. The software program that my project is based on is called Data Quality Dashboard, which helps evaluate the quality of the health data from multiple aspects. My project will design its own codes in addition to the existing ones in order to better evaluate the health data of COVID-19 patients. It is necessary to ensure the quality of the electronic health data before the further analysis of possible.

Method/Approach: Electronic Health Data were individually collected at four hospitals and sent to the Bioinformatics department under Rutgers Cancer Institute of New Jersey for further review. The health statistics were from patients who had COVID-19 or had shown symptoms of COVID-19 but tested negative. All of the data were exported to different spreadsheets according to its original table categories. The analyzing technique was built based on the R codes that OMOP has provided, which is a partnership established to inform the appropriate use of observational healthcare databases for studying the effects of medical products, but the individual checks were put in manually to adjust the model to fit the health data. Using the Data Quality Dashboard software program, which can be installed into R, it applies a Harmonized Data Quality Assessment Terminology and evaluates the checks against threshold to determine the legitimacy of the health data. There are three check categories (completeness, plausibility, conformance) and two subcomponents (verification, validation) in total. Each check tests one specific aspect of the data and evaluates its legitimacy.

Outcomes/Results: Of all the electronic health data from four hospitals, 2160 of 2281 (95%) checks passed the plausibility check, 474 of 785 (60%) checks passed the conformance check, and 381 of 401 (95%) checks passed the completeness check. In total, the data quality assessment yields a result of 87% checks passed for the given data.

Evaluation/Conclusion: The overall data quality evaluation of the dataset is 87%, which means that 87 percent of the checks were passed according to the threshold values. However, the conformance ones failed the most. This means that 40 percent of the data values do not adhere to specified standards and formats. After detailed analysis of the data, it is shown that many of the failed checks were resulted from grammar errors because of the """" around health data terminology. Even though the results were not caused by terminology and definitions used by different hospitals, this software assessment helps me target the problem, and we can look further into it with the data. Assessments like this are necessary to ensure the quality of the statistics before using data for future research usage.
Title: Barriers and Facilitators of Physician-Patient Communication at CINJ

Name: Daniel Quizon

Preceptors: Frances Di Clemente, Program Analyst

Agency: Rutgers Cancer Institute of New Jersey (RCINJ) - Precision Medicine Oncology

Purpose: Address language discordances at RCINJ through the creation and evaluation of possible tools to improve patient health literacy.

Significance: Recent RCINJ data indicates precision medicine in cancer produces optimistic health outcomes for Latino-ancestry patients, even in advanced stage cancers. However, observations show that Spanish-speaking patients have difficulty understanding information about their diagnosis and treatment (Rodriguez-Rodriguez, 2019). Communication breakdown is attributed to factors like language discordance and a patient’s educational attainment (Aelbrecht et al., 2019). In 2018, English proficiency for immigrants was only 53%, warranting possible medical information comprehension issues. Immigrants have recorded lower levels of educational attainment in comparison to their US-born counterparts (Pew Research Center, 2018). RCINJ wants PPC modified to make medical information easy and understandable. Latino patients have positive attitudes and the willingness to participate in genomic testing (Ramirez et al., 2015). Reducing communication barriers may increase Latino patient visits at RCINJ, thus promoting earlier testing, genomic profiling of tumors, and saving more lives through precision medicine. Communication boards (CBs) are a potential intervention to this communication breakdown. Patient satisfaction increased when CBs were used to facilitate communication between the healthcare provider and patients. (Kaur, 2018). Optimal PPC allows proper expression of needs, thoughts, and feelings despite language barriers.

Approach: A literature review was conducted to identify the importance, barriers, and facilitators of PPC. A prototype communication board (CB) was drafted in Spanish for the recommended use of non-English speaking or limited English proficient patients. The board is intended to be used electronically on a tablet for accessibility. Prototype CB evaluation will be done with bilingual speakers to test information comprehension, first impressions, and preferred recommendations.

Outcomes: Objective of prototype CB is to provide clear information about a patient's cancer diagnosis, treatment options, and RCINJ’s precision medicine work. It will support conversations with a medically proficient individual in the patient’s language for any questions post-diagnosis. A survey was conducted after CB evaluation to record level of health literacy and comprehension among subjects. Subjects were given five questions to score between 1 to 5, and four questions asking “yes or no.” Every subject voted “yes” on the “yes or no” portion of the survey, but there were a variety of answers on the scored questions. Every scored question fell between the range of 3 and 5.

Conclusion: Results from survey indicate a positive impression of the prototype CB. For health information and communication, the CB is very useful. Recommendations were given, such as cancer support group resources and improving translation & grammar. Increases in patient-centered care through the CB involve outcomes like increased compliance, treatment adherence, improved health outcomes, and patient satisfaction (Tongue et al., 2005) at RCINJ. Until further evaluation and improvements, patient access to CB will be barred. Subsequent tests with CINJ staff are needed for a healthcare professional perspective and to refine CB for medical use. Overall, the CB was found to have success among subjects to present important but understandable cancer health information.
Internship Abstract

Title: Combating Food Insecurity throughout New Jersey

Name: Samantha Ramos

Preceptors: Consultant: Theodore Sigglelakis, Consultant: Gabriella Cancemi

Agency: Soup Kitchen 411

Purpose: To acquire a monetary grant in order to combat food insecurity in the expecting, and existing food deserts throughout New Jersey.

Significance: Hunger and food insecurity burdens millions of families across the nation, especially after the global pandemic. This is a rising epidemic in New Jersey, as 762,530 people are facing hunger - and of them 192,580 are children, as reported by Feeding America in 2021. As a result, Soup Kitchen 411 has launched a campaign to support these individuals and provide hot meals to all regions with expecting or existing food deserts. This is done by partnering with local restaurants that face business challenges or closure, due to the damaging impact of the pandemic. This campaign has successfully provided meals to vulnerable families and has helped stimulate local economies and salvage businesses. Continuation of this campaign will further combat the insufferable consequences of food insecurity in New Jersey.

Method/Approach: An extensive grant proposal was written and submitted to multiple funders in order to obtain sufficient funding for the continuation of this project. This included analytical research on the top food deserts in New Jersey with the most vulnerable populations. Further research was conducted on the struggling restaurants within the 21 counties of New Jersey. In order to draft a successful grant proposal for funders, the following sections were completed and peer-reviewed for submission: 1) Cover Letter, 2) Abstract, 3) Needs Assessment, 4) Letter of Intent, 5) Goals and Objectives, 6) Organizational Capacity, 7) Budget, 8) Implementation Plan, 9) Evaluation Plan, and 10) Sustainability.

Outcomes/Results: The anticipated outcome will be an approved and provided monetary grant of $200,000 from The Provident Bank Foundation. This grant will be used to strengthen the infrastructure of the Soup Kitchen 411 organization as a whole, through means of establishing more collaborations with restaurants, soup kitchens, and community centers to distribute hot meals. This grant will also contribute to more competitive wages in order to maintain successful operations and staff members. It is anticipated that hot meal distribution will increase by 50%, in comparison to distribution totals in 2021. It is anticipated that 1,000,000 hot meals will be distributed in a one-year period, and there will also be a 50% increase in distribution locations within each county.

Evaluation/Conclusion: Internal records and data will be used for comparison when evaluating the outcomes of the campaign, quarterly. Individuals will be encouraged to complete an anonymous, exit satisfaction survey after receiving their hot meal, in order to maintain positive community outreach contentment. Ongoing data collection of meals served and survey results will continue throughout the entire year and will be reviewed quarterly to ensure goals are being met.
**Title:** LLS Patient and Community Outreach in Greater Los Angeles

**Name:** Premila Reddy

**Preceptors:** Patient and Community Outreach Manager, Leila Evangelista

**Agency:** The Leukemia and Lymphoma Society (LLS)

**Purpose:** To further the organization’s mission by providing patients with all the resources, tools, and information they need to improve their quality of life and help navigate their journey with blood cancer.

**Significance:** Every three minutes, one person in the United States is diagnosed with blood cancer, accounting for ten percent of all diagnosed cancers in the U.S (LLS, 2022). Blood cancer is a type of cancer that occurs when abnormal blood cells grow out of control and interrupt the function of normal blood cells. The three main types of blood cancer include Leukemia, Lymphoma, and Myeloma (ASH, 2022). Many patients battling with this condition are often unaware of all the resources that are readily available to them. LLS is the leading source of free blood cancer information, education, and support for both patients and caregivers. They have invested over $1.3 billion into blood cancer research. LLS aims to help patients by providing them with educational and supportive resources during and after their diagnosis and treatment. Providing patients with the proper resources and support can create a world of positive difference in a patient’s cancer journey.

**Method/Approach:** In order to ensure patient’s were receiving the resources they needed, weekly one-on-one calls were made and emails were sent out to check on patients as well as inform them of potential LLS resources they could utilize. LLS offers a multitude of resources including educational, financial, and supportive assistance. Based on each patient’s history and background, the appropriate resources were offered. Weekly calls were also made to inform patients of educational conferences and free education events for blood cancer patients. Cancer can be extremely debilitating not only physically but also on a patient’s mental health. For this reason, one of the main focuses was the Patti Robinson Kaufmann First Connection Program. This program is a free LLS service offered to patients, family members, and caregivers. It connects a patient and their loved ones with a trained peer volunteer who has gone through a similar experience. This program gives patients and their families the opportunity to share their experiences with someone who has been through the same thing and can offer quality advice and support. All interactions including phone calls, emails, and first connection matches were recorded on a database called Salesforce to track and document patients’ progress and cancer journeys to better help them in the future.

**Outcomes/Results:** After weekly phone calls over the span of 16 weeks, over 200 patients were assisted and inputted into the Salesforce database. These weekly calls allowed for patients to become more familiar with LLS and its services. Many patients have heard of LLS but were not aware of all the resources that were available to them. Through phone calls and emails, patients were able to be directed to resources that would benefit them. Over 20 first connection matches were secured and many patients were able to attend LLS conferences and lectures to be better educated on blood cancer.

**Evaluation/Conclusion:** Overall, it was found that the Patient and Community Outreach Department plays a significantly large role in assisting patients. Patients have greatly benefited from all the resources provided by LLS and appreciate the support during their difficult journey with blood cancer.
Internship Abstract

Title: Health Insurance Information Campaign

Name: Michael Ricciardi

Preceptors: Suze Risteski, VP of Employee Benefits

Agency: Partlow Insurance Agency

Purpose: To create and distribute informational pieces about pertinent health insurance legislation changes and health insurance-related news.

Significance: According to the United States Census Bureau’s American Community Survey, 2019 1-year estimates, 58.2% of the population of New Jersey is covered only by employer-sponsored health insurance. Given that insurance legislation in the state of New Jersey, as well as the country as a whole, is ever-changing and evolving, it is crucial that insureds understand how their coverage might change with changing laws and standards. A lack of understanding can result in unforeseen costs for insureds, which can restrict their access to affordable, covered healthcare. The creation and distribution of informational pieces that follow changing health insurance legislation will provide insureds with a better understanding of their access to healthcare.

Method/Approach: The approach to the informational piece development and distribution was multi-tiered. First, templates were developed for different types of information distributions. These templates served as foundations for all pieces that were sent out over the course of the project. Information was sourced directly from insurance carriers, news outlets, or governmental agencies. It was then determined whether or not the pieces were relevant to the recipients in question. If relevant, the information was summarized, formatted into one of the predeveloped templates, and subsequently distributed via email. Analysis was performed on open and click rates of emails, and adjustments were made to future distributions based on these findings.

Outcomes/Results: Of the informational pieces distributed in this period (n=12), the mean open rate was 0.56. While this represents that fewer than 60% of recipients opened the distributions, the percent change of mean open rate from the first five distributions (μ₁=0.53, n=5) to the most recent five distributions (μ₂=0.59, n=5) is 11%. For distributions with clickable links for more in-depth information, the click rate was 0.10, representing that 10% of recipients clicked on links in the distributions.

Evaluation/Conclusion: Overall, the insurance legislation change and health insurance-related news informational piece development and distribution project was successful. At baseline, 53% of individuals opened the distributions. This number increased significantly to just under 60% at the conclusion of the project. Given the importance of information in today’s climate, it is crucial that more individuals have access to information as it is made available, which is what this project sought to accomplish. Percent change in open rates over the course of the project denotes a positive impact. Going forward, options for further development of distribution methods and formats will be considered so as to maximize open and click rates.
Internship Abstract

**Title:** Marketing Planner and Transforming Database

**Name:** Anissa Rizzo

**Preceptors:** Dr. Serge Kaslow

**Agency:** Dreams Plastic Surgery

**Purpose:** To oversee and manage marketing for social media, create new material, create infographics, patient coordination, and transform data bases.

**Significance:** To improve marketing plans/new material. Creating new ideas by transforming databases to improve the office is important. Creating new campaigns, infographics, and posters is significant to reach new patients. Using the social media platform is crucial when searching for doctors online. A clean ad/post is needed to reach patients. To improve positive patient flow records and paperwork must be in order. The average number of patients seen a day is 40. Managing the records and the proper care for these patients takes planning and comforting. The first step is checking in the patients and asking if they're here for a consult, follow up, or procedure. An organized schedule by allowing certain days to do each is important. For example Monday and Wednesdays the doctor only sees consult patients. Tuesday and Thursdays are for follow up appointments. Fridays and Saturdays are surgery days. Since the operating room is located inside the office, the task is to make sure the team is set for the schedule a week before. We also have to have our OR equipment checked once a month in which is my responsibility to take the appointments for.

**Method/Approach:** Dreams Plastic Surgery is designed to treat patients in a step by step manner to make sure everything runs smooth. Data was collected using the offices pre-existing database through ChartLogic EHR which contains information on all patients. It also allows the patients to access their data on their portal. Through this database electronic medical records are kept, revenue cycle is shown, e-prescribing, and patient portal. This information is collected via health forms/wavers that the patients fill out during their first consultation. Once the paperwork is filled out it is transferred into the database where it is now electronically accessed. The patients also are required to fill out a survey once their paperwork and consultation is complete. This allows the staff to know if anything needs improving or needs to be changed. Moving on to creating new materials, the platform PowerPoint is used. A rough draft is submitted by paper and then transformed to the Desktop to get a better visual. Clean ads/posts are needed to reach new patients. Once a rough PowerPoint draft is complete it will be submitted to the media manager who then approves it or edits where changes need to be. Lastly, it is posted on the internet where the manager oversees the analytics’ of the post and if it has enough engagement reached.

**Outcomes/Results:** High productivity and patient feedback is the main goal of the office, this would serve as a tool for various innovation opportunities. There has been a 20% increase in new patients since January, 42% increase in revenue and 37% increase in engagement on all social media platforms.

**Evaluation/Conclusion:** During this process, various tools like satisfaction surveys, engagement reach, patient’s feedback, could help the organization make sound decisions. Pre-op and post-op surveys would allow the staff to provide better resources for our patients. The surveys would allow better evaluation and results of how their experience was at the office overall.
Internship Abstract

Title: ARM’s Promoting Hygiene in New Brunswick’s Homeless Community

Name: Marivi Rodriguez

Preceptors: Co-Founders: Kelsey Lynch & John El-Maraghy

Agency: Archangel Raphael’s Mission

Purpose: To engage the community of New Brunswick to lead an active role in serving the underserved in their city.

Significance: The United States has over 500,000 homeless people on any given night (NAEH 2021). The city of New Brunswick has a large homeless population; there are roughly over 200 homeless people every year, including those in shelters and those on the street. Our homeless population does not have access to proper hygiene products or do not have the ability to practice good hygiene (New Brunswick Today 2021). Over 5,000 homeless people died in the year 2020 due to a lack of proper hygiene. During COVID-19, the homeless population has suffered tremendously, with lack of access to proper PPE, shelter, and meals. This project will aim to aid the homeless population in promoting access to adequate hygiene and quality of life.

Method/Approach: ARM aims to set up hygiene stations on the streets of New Brunswick to encourage our homeless population to practice good hygiene. ARM has small hand-washing stations and will run a shower program in the spring. ARM has recruitment events planned to increase donor and volunteer engagement. Along with these efforts, interns also hand out nightly meals and supply any individual with any hygiene needs. These events help the homeless community tackle the disparities their community faces. At the nightly dinner service, interns and volunteers will hand out masks, hand sanitizer, gloves, etc; these products serve to provide some defense against the COVID-19 pandemic. On weekends, interns would help facilitate a haircut service that provides this population with free haircuts.

Outcomes/Results: As ARM was pending approval for the hygiene shower units and hand-washing stations, ARM served 6,300 meals from the beginning of the year to mid-April. ARM dispersed around 200 personal hygiene items, including socks, masks, hand sanitizer, and shoes throughout the semester. The shower unit and hand-washing stations will begin the first week of June in New Brunswick. On 4/10/2022, a haircut event at the United Methodist Church of New Brunswick took place, serving about 15 community members. ARM hosted a recruitment event with Rutgers’ organizations and were able to recruit 10 new consistent volunteers. Along with volunteer recruitment, ARM hosted a fundraising event, earning over $200 for the organization.

Evaluation/Conclusion: ARM’s community efforts reduce the detrimental impact improper hygiene has on the homeless population. This outreach program supplies this community with a sense of comfort and reliability; they can always get a hot meal and hygiene supplies. This organization tackles the health disparities the homeless community faces. ARM focuses on distributing hygiene products at their daily dinner service, along with setting up a shower unit when it is warm. ARM keeps track of the weekly users and looks for growth in numbers. When the shower units begin, there will be a chance for this population to visit weekly and shower in a comfortable and safe environment.
Title: Analyzing Why Market Research Matters

Name: Jaclyn Rosa

Preceptors: Direct Supervisor: Jessica Steinacker, Group Supervisor: Tim Holland

Agency: BGB Group

Purpose: To analyze the process of marketing a product with specific survival data and discussing how the agency and client partner to deliver the ultimate in market material.

Significance: Gastric cancer is a disease that touches the lives of so many people. It occurs when cancer cells form in the lining of the stomach. Each year about 26,000 people in the United States get diagnosed with gastric cancer and last year over 11,000 people died due to gastric cancer. It is an extremely intense cancer with a low survival rate, so it is important that people get the help they need through drugs that could prolong their life. BGB partners with pharmaceutical holding companies to market and promote these drugs to doctors through pharmaceutical marketing promotional materials.

Method/Approach: To go into the market research process and deliver marketing material BGB partners with Bristol-Myers Squibb to align on marketing strategies and create educational and promotional materials to market medications. The drug that is being promoted goes through extensive clinical trials and testing to be approved by the Food and Drug Administration. After approval or while awaiting approval BGB partners with companies to create materials to bring to market. The Market Research process begins where the clients identify the desire for a marketing solution. The agency and clients discuss marketing goals and pull together project briefs for specific creative and probes for the market research. After, the agency kicks off with the internal team and develops specific market research creative materials to help guide the interviews and understand HCP insights. Market research interviews are held, and feedback is discussed. The agency then begins development of in market materials based on the insights gained from market research.

Outcomes/Results: By going through the market research process and developing potential materials to help position and market survival data, BGB was able to partner with clients to adapt and continue to develop marketing materials based on insights gained. Through collaboration between the Account Team, Project Management Team, Copy Team, Strategic Team, and Art Team along with the client’s vision BGB can create marketing materials that satisfy the client’s needs and promote the medication in a positive light.

Evaluation/Conclusion: Through a thorough understanding of the market, Healthcare Professional insights, and the market research process, BGB can provide clients with materials that meet the client’s needs and ultimately provide doctors with educational materials detailing the data they need to understand to treat a patient.
Title: LLS Patient and Community Outreach

Name: Jazmin Sallit

Preceptors: Leila Evangelista: Patient and Community Outreach Manager

Agency: The Leukemia and Lymphoma Society (LLS)

Purpose: To help patients with cancer by giving them LLS resources that can be helpful to them in their journey and to promote the services we have to offer.

Significance: Blood cancers, including Leukemia, Lymphoma, and Myeloma, cause about 57,750 deaths in the US. Approximately 186,400 people in the US are expected to be diagnosed with a blood cancer in 2021. The Leukemia and Lymphoma Society has put $1.3 billion in research for blood cancers. They also provide free support, education, and financial services to blood cancer patients. This project contributes to the solution because at LLS we give patients knowledge of our services in order to help them.

https://www.lls.org/

Method/Approach: The goal at The Leukemia and Lymphoma Society is to give resources to as many patients with blood cancer as possible. We strive to be there for patients and try to help them in their journey with cancer. We give patients educational, support, and financial resources as well as being there to talk to them and answer any questions or concerns they may have. Something that we specifically do, which is a part of our support services, is set up First Connections for patients so they can have someone to talk to and share their experiences with. We also provide them with which financial services they qualify for and help them apply. There are also education programs and lectures that we tell patients about if we think they would be helpful for them. Lastly all interactions are uploaded and information on patients onto Salesforce to further help all patients.

Outcomes/Results: While being at LLS, there have been 160 new households entered into our system and 15 First Connections. We have called numerous patients and family members and given them the resources that would work for them. We have also made a great deal of First Connection matches. The First Connection program is for patients and family members to get matched with another patient or family member who has already “been through it” and they are able to talk to them and ask any questions as well as share experiences with them. Another achievement we have made is getting patients to go to our educational lectures and conferences. These accomplishments have all helped LLS and all the patients that go through our agency.

Evaluation/Conclusion: Overall, many patients find the resources to be very helpful and they are usually grateful that we can help them in any way. It seems that many patients mostly appreciate the financial services and also the support services. It is usually helpful for patients and family members to get support because cancer is a very difficult journey.
Internship Abstract

**Title:** Regulatory Affairs and Document Retention

**Name:** Kayla Sampayo

**Preceptors:**
- Direct Supervisor: Sandy Suh, VP of Regulatory Affairs and Chief Compliance Officer
- Project Supervisor: Jennifer Howard, Regulatory Affairs Specialist

**Agency:** Recordati Rare Diseases, Inc. (RRD)

**Purpose:** To archive regulatory correspondence documentation using the Veeva Vault RIM platform to maintain compliance with Title 21 of the FDA Code of Federal Regulations.

**Significance:** Pharmaceutical companies are licensed to research, develop, market, and distribute drugs for healthcare purposes. Each of these functions require the efforts of the regulatory affairs department to establish and maintain procedures to control all documents required by 21 CFR Part 820 (Tartal). This documentation needs to be readily available and retrievable. Without record retention and document management, the pharmaceutical company will no longer be able to develop drug products, conduct clinical trials, market the products, nor distribute products to patients in need. These documents must be reviewed and approved by designated individuals and must maintain compliance with FDA regulations. To ensure compliance, the Veeva Vault RIM platform will be used to organize and backup regulatory documentation in a way that will increase accessibility and prevent loss.

**Method/Approach:** To determine which files were to be migrated into the Veeva Vault RIM platform, all correspondence files in the RRD repository were viewed and organized. There were a total of 20 products, each product repository contained correspondences with health authorities and internal communications. Each individual file was assessed and placed into categories to prepare for upload into the Veeva Vault RIM system. These categories include, deletions, reclassifications, and completions. Documents categorized as deletions were deemed unnecessary to migrate into Veeva, reclassifications were documents belonging to outside departments that would not need to be migrated into Veeva, and completions were files that were approved to migrate.

**Outcomes/Results:** Rather than listing all 20 products, the most significant reviews will be listed. Of the total files for Carbaglu (n=3,113), 6 (0.2%) documents were reclassified, 1,456 (46.8%) documents were deleted, and 1,651 (53.0%) documents were migrated. Of the total files for Desoxyn (n=1,396), 11 (0.8%) documents were reclassified, 624 (44.7%) documents were deleted, and 761 (54.5%) documents were migrated. Of the total files for Elspar (n=810), 61 (7.5%) documents were reclassified, 239 (29.5%) documents were deleted, and 510 (63.0%) documents were migrated. Of the total files for Panhematin (n=792), 161 (20.3%) documents were reclassified, 275 (34.7%) documents were deleted, and 356 (45.0%) were migrated.

**Evaluation/Conclusion:** More than half of the total regulatory correspondence files of Carbaglu, Desoxyn, Elspar, and Panhematin (n=6,111, 53.6%) were migrated into the Veeva Vault RIM system. With historical documentation moved to this online platform, this harmonized format will be useable by FDA and shareable between companies within the organization (Handoo et al., 2012). Now that these files are easily accessible, RRD will be prepared for audits and business development pursuits.
The Effects of Diet on Menstrual Pain

Serah Sannoh

Dr. Gloria Bachmann, Director of the Women’s Health Institute

Women’s Health Institute

To study the effects of diet on the level of menstrual pain adolescent and college aged women experience through existing literature.

Dysmenorrhea, or menstrual pain, is the leading cause of school absences (French, 2005) and has a prevalence rate of 90% among adolescent girls (Coco, 1999). Despite the high prevalence of menstrual pain, many adolescent girls do not seek treatment for it. This pain is typically managed with the use of over-the-counter pain medication, but many times this does not remedy the pain which affects the quality of one’s life. Evidence has highlighted that diets high in omega-3 fatty acids and low in processed foods, oil, and sugar reduce inflammation, which is a key contributor to menstrual pain. The Women’s Health Institute promotes women’s health research and brings light to areas in women’s health often forgotten, such as the dysmenorrhea many adolescent girls face. Dietary solutions to menstrual pain should be researched more because one’s daily diet influences their health outcomes. This project will study the effect of diet on menstrual pain and will evaluate which foods contribute to dysmenorrhea in adolescent girls and which foods can reduce the negative lifestyle effects of this condition.

Research was conducted through a literature search of peer-reviewed articles and journals which were found using the search engines Rutgers Library, PubMed, and ScienceDirect. Multiple studies evaluating the relationship between period pain and specific diets were analyzed. To narrow the search results the advanced search tool was used to search for keywords such as “diet”, “dysmenorrhea”, “foods”, “menstrual pain”, “period pain”, and other related terms. The advanced search tool was used to narrow my search by using “and” between keywords and by using “or” to widen my search. This study is targeted towards adolescent and college-aged girls, which is why the search terms “adolescent”, “college”, and “university” were also used.

The results from the multiple studies were collected from nested control case studies, questionnaires, and random assignment. These studies examined the dietary patterns that result in menstrual pain. It was found that diets high in animal meats, oil, sugars, salts, and coffee contribute to an increased risk of dysmenorrhea. Studies found that foods high in omega-6 fatty acids promote inflammation and foods high in omega-3 fatty acids reduce inflammation (Deutch, 1996). It is very common for college aged girls in America to eat diets high in omega-6 fatty acids, since this is the bulk of the American diet. Since menstrual pain results from inflammation, it is important to have a balance of omega-6 and omega-3 fatty acids in your diet or have more omega 3- fatty acids in your diet.

The findings from multiple studies suggest that diet does have a role in menstrual pain. To reduce this pain, it is advisable to avoid diets that trigger inflammation. The muscles in the uterus contract due to prostaglandins, which are very active in inflammatory responses. When measuring one's Dietary Inflammatory Index, it was found that those on a vegan diet, which excluded animal fat, had the lowest rates of inflammation (Turner-McGrievy, 2015). It is advisable to adopt a diet that avoids inflammatory foods to remedy dysmenorrhea.
Internship Abstract

Title: Patient and Community Outreach Internship (Remote)

Name: Saba Sarwar

Preceptors: Melissa Darbandi; Patient and Community Outreach Manager

Agency: The Leukemia and Lymphoma Society - Connecticut and Hudson Valley Region

Purpose: To extend the reach of The Leukemia and Lymphoma - Connecticut and Hudson Valley Region resources through advertising and promoting health education programs to targeted blood cancer populations, and providing, engaging, educating LLS patients and healthcare professionals with appropriate resources needed.

Significance: Blood Cancer is a cancer that forms in the blood; common categories of blood cancers are Leukemia, Lymphoma, and Myeloma (Ellent 2021). Although research plays a pivotal role in the goal to end blood cancer, there is still uncertainty linked to finding an answer (LLS 2022). In the meantime, it is important to support blood cancer patients in need of help before, during and after their diagnosis and treatment (LLS 2022). Blood cancer information, education and support for patients, survivors, families and healthcare professionals can help patients navigate their cancer treatment, ensure their access to affordable and coordinated care, and relieve patients with uncertainty and mental distress (LLS 2022).

Method/Approach: Frequent blood cancer patient outreach calls were made to ensure that individuals are aware of the resources they can receive through LLS. Depending on weekly assignments a number of 20-100 patient calls were made to check-in on patients and ensure they have appropriate resources for their current situation(s). Management of advertisements publications promoting health educational programs were done towards targeted communities, or blood cancer patients within elderly or general populations in rural districts located in Upstate New York - Hudson Valley, Connecticut, and Vermont. Outreach calls were made to health professionals to further update their LLS resources through Zoom interactive meetings, with preceptor. Outreach patient and healthcare professional calls were recorded into electronic records, Salesforce. Additional minor projects were done to assist preceptor, such as making and sending cards and excel/data-entry and analysis.

Outcomes/Results: Several patients connected through LLS are not aware of the additional resources that LLS provides, or do not have online access to resources they need. Patients within rural areas, tend to need further guidance and support however do not know where they can find it. Check-in patient calls allows the opportunity for them to learn more about the resources that can help. Advertising healthcare events through newspaper publication can raise awareness, increase audience number, and promote audience engagement. Updating healthcare resources to different healthcare facilities, in rural areas, further increases awareness of LLS’s cause and helpful resources.

Evaluation/Conclusion: The Patient and Community Outreach department in LLS, plays a vital role in supporting and providing resources to patients. They truly seek to help their patients understand their diagnosis, what treatment is best for them and even how to make proper decisions that lead to the high quality lifestyle they desire. Furthermore, they play a key role in promoting health education programs and providing resources to healthcare facilities, who then reforese these sources to their patients.

References (Links): Facts you need to know about blood cancer (wjmc.org); Mission | Leukemia and Lymphoma Society (lls.org)
Title: Community Outreach

Name: Nusaiba Sayed

Preceptors: Vivian Arroyo, NU-DAY Program Director

Agency: Prevention Links

Purpose: To educate and assist the youth and their families, who have been affected by substance use disorder, by providing free mentorship and counseling services.

Significance: A survey found that substance use disorder is fairly common among Americans and that over 20 million people suffer from problematic substance use in the United States. During recent years, the annual average prevalence of marijuana was 6.5%, alcohol was 11.2%, and illicit drug use was 7.3%. Prevention Links consolidates local and state resources to eliminate the deleterious effects of drugs, alcohol, violence, and inadequate educational and health institutions in the communities. This project helps to connect organizations and facilities with Prevention Links by educating them about the program and subsequently receiving referrals from the said institutions to help individuals who might be battling with substance use disorder.

Method/Approach: In order to bring more awareness and connect with various organizations throughout Middlesex county, a list of all the schools, treatment providers, detention centers, and community leaders was compiled including emails and phone numbers of those that were in charge of the youth (and their families). Through this process, emails were sent to guidance counselors and healthcare professionals in order to educate them about the program. For organizations that had no emails on their websites, they were contacted by phone where discussions were held about the program as well as obtain an email address of a primary contact to send flyers and brochures.

Outcomes/Results: After conducting outreach and attending meetings led by community leaders for about thirteen weeks, the total enrollment number for the program increased to twenty-eight youth participants. Prior to this large amount of enrollment, there were only thirteen kids considered active in the NU-DAY youth program. 8 of these participants became enrolled through outreach strategies which consisted of sending emails with flyers/brochures and contacting facilities by calling them as well. 7 of these participants became enrolled through referrals from community meetings such as CIAAC of Essex and CNA of Union.

Evaluation/Conclusion: Prevention Links will continue to help individuals who are in need of assistance due to their substance abuse disorder and provide them with the necessary resources to better their lives. As this internship is coming to a closure, I expect to continue the work that I do and potentially reach out to significantly more organizations within the next few days to help further the program and allow more youth to take part. The efficiency and effectiveness of this program can be determined through participation of the youth.
Title: Social Awareness Campaign for CLEAR-TB
Name: Rachael Scarinci
Preceptors: Emily Douglass, Clinical Research Program Manager
Agency: New Jersey Medical School - Newark, NJ

Purpose: To raise awareness about Tuberculosis and new research on new CLEAR-TB social media platforms.

Significance: Each year, tuberculosis takes 1.5 million lives globally. Tuberculosis still remains the leading cause of death from a single infectious disease agent. Approximately 10 million people globally were infected with TB in 2018 (MacNeil, Adam, et al.). Fukunaga, Rena, et al. (2021) found that even with tuberculosis infection rates decreasing from year to year, millions of people around the globe are still battling the fight against infection and disease. This being said, the collaborators associated with CLEAR-TB want to raise awareness and share information about the novel research being conducted by the consortium in TB endemic countries around the world. Social media platforms such as Twitter and LinkedIn are powerful tools that can be used to reach large target audiences to educate the public and other researchers or institutions about how CLEAR-TB collaborates with its international partners.

Method/Approach: CLEAR-TB is a consortium of experts in the field of Tuberculosis around the world including the United States, South Africa, Peru, and Uganda. A questionnaire was formed and sent to the international site locations in order to compile information and photos. That process gauged how each collaborator contributed to the scientific objectives laid out in the clinical and basic science protocols developed by CLEAR-TB, highlighting their efforts and expertise. Social media accounts, such as Twitter and LinkedIn, were established as a platform to share information about the projects, collaborators, and progress being made and to bring awareness to tuberculosis and the fight against it. The Twitter page captured analytics on how each post engaged with other Twitter users. On top of the Twitter page, a website is being developed to inform people further about CLEAR-TB programs.

Outcomes/Results: Upon reaching out to key collaborators and site leaders of the FEND-TB Novel Diagnostics Consortium in South Africa, Peru, and Uganda, a total of 43 items were collected. South Africa was able to provide five images and two educational paragraphs, while Peru was able to provide 24 images and eight educational paragraphs, and Uganda was able to provide three images and one educational paragraph. Of those 43 items collected from the FEND-TB collaborators, 14 Twitter posts were created to raise awareness about tuberculosis and educate the public on World TB Day. Once the Twitter posts were uploaded, within two weeks, the Twitter page had obtained 872 impressions, 601 profile visits, and two followers. The top tweet gained 171 impressions while the top media tweet acquired 74 impressions.

Evaluation/Conclusion: Of the three international locations, Peru provided the most resources about their site. More specifically, the children’s hospital in Peru had the youth construct posters for World TB Day, and the top posters were shared on Twitter. Since they provided the most information, tweets regarding tuberculosis awareness in Peru trended more when reviewing the analytical results. South Africa ranked second for impressions, while Uganda ranked third. With continuous collection of material, future Twitter posts will be more engaging to gain more page traction.
Title: Juvenile Justice System Project

Name: Dora Schechter

Preceptors: Blake Carter, CEO, Shannon Lavan, Project Manager

Agency: LionOx Master Company

Purpose: Research effective ways to improve the juvenile justice system in the United States, to improve the mental health among incarcerated young adults. After that research is done, connect with existing organizations who are trying to implement improvements into the system, such as the Marshall Project, among others.

Significance: An average of two million minors are inducted into the juvenile justice system in the United States every year. This oversized and vulnerable population is oftentimes forgotten about, mistreated, or both. By doing research into the American juvenile justice system, problems and solutions can be found to improve the lives of these incarcerated children. Even one small change could affect thousands, and every child in the system deserves a chance for rehabilitation in a safe and productive environment.

Method/Approach: This project entailed conducting a literature review into some common problems in the juvenile justice system, and then turning those into a paper of my own. Specifically, it looks at these problems from a mental health perspective. All of the articles in the literature review look at the mental health of inmates in some way, and find patterns that are present throughout all of them. Once these patterns are established, and a problem is therefore identified, it then offers solutions that can be tried or have been tried in other places. This research adds to the research of everyone else in the group, as well as with other existing organizations.

Outcomes/Results: The overall picture of mental health in the prison system is incredibly grim. In particular females, disabled people, people with learning disabilities and those incarcerated for violent offenses had the most negative mental health symptoms. 5-10% of juveniles in prison develop serious mental health symptoms and they outnumber their non-incarcerated peers by a factor of 30-60% in regard to trauma, learning disabilities, maltreatment and mental disorders. Additionally, juveniles in adult facilities had worse mental health and were more prone to bad behavior than the adults in the same facilities and other minors in youth-only facilities. Other factors, such as transitioning from one prison to another, heightened stress and stoicism in inmates. Overall, children in prison outnumber their non-incarcerated peers in every category of trauma and mental illness. The evidence suggests that children who needed mental health interventions, did not receive it in time to prevent incarceration. There are some organizations that are trying to help, but more needs to be done to help these children.

Evaluation/Conclusion: Specific therapies or interventions for mentally ill juvenile delinquents are desperately needed. These therapies might be best utilized in a preventative way, before these children even commit the crimes for which they are imprisoned. If these children can be helped before they turn to crime, then the problem will be fixed before it even manifests. There are people who are qualified to help these incarcerated minors, but there is a greater demand than they can service. More government and private funding can greatly improve the situation.
Title: New Jersey Population Health Cohort Study Recruitment

Name: Johnathaniel See

Preceptors:
Direct Supervisor: Swati Kumar, MD, Research Coordinator
Project Supervisor: Dan Dychtwald, PhD, MPH, MS, Senior Project Manager

Agency: Rutgers Institute for Health, Health Care Policy and Aging Research

Purpose: To recruit for an upcoming longitudinal research study examining the effect stress, resilience, and other factors has on population health in New Jersey, with an emphasis placed on historically disadvantaged groups, multi-generational families, and immigrant groups.

Significance: There has been no large-scale longitudinal study that identifies factors impacting the health and wellbeing of the population of NJ from a multidimensional perspective. There is also a lack of focus placed on historically disadvantaged groups, multi-generational families, and immigrant groups when conducting research, even though they are more susceptible to the negative consequences of these factors and disparities. Minorities currently represent over 30 percent of the U.S. population yet only around 17 to 18 percent of clinical trial and research participants are from minority groups (George et al., 2014). The New Jersey Population Health Cohort Study will be the largest study of its kind in New Jersey and seeks to address these gaps in research participation, with the data and knowledge collected used as a potential basis for future interventions and programs.

Method/Approach: Probability sampling was the first method of recruitment with three subcategories: mailing lists, outbound calling, and in-person canvassing. Households were assigned and contacted. The study was explained and if the household accepts enumeration, their eligibility for the study is determined and participation offered if they are accepted. Recruitment was also done in-person in two person teams assigned a certain geographical region of New Jersey to cover, or through respondent-driven sampling, or RDS, with the goal of oversampling refugees/asylees and 9 immigrant groups. “Seeds” were identified, recruited and given three coupons to recruit other members of their immigrant group for the study that met the criteria for participation. The recruited members were then given three more coupons to disseminate amongst their network. Contact was done in different languages when necessary. Documents and flyers related to the study were translated to disseminate among the associated population.

Outcomes/Results: Recruitment and training for the study has been an ongoing process since February and will continue for three waves over 10 years. An estimated 10,000 to 20,000 New Jerseyans will be recruited. Outreach for RDS has yielded partnerships with numerous community organizations, consulates and businesses to identify “seeds”. Tagalog translation of consent forms, study flyers, and coupons was done and will be used in the study. Calling and emailing for recruitment has begun and several people have already expressed interest in participating. Training on the canvassing tool, survey portion, and actigraphy and device portion has been completed.

Evaluation/Conclusion: Preliminary evaluation of the recruitment methods for the study show much promise. RDS will serve as an effective tool to reach underrepresented populations in research, with the potential of exponential growth in recruitment through the “seed” and coupon program. Translations of survey items and documents as well as communication in potential participants’ preferred language made them feel comfortable and more willing to participate. Recruitment methods will be continuously reviewed and reevaluated to assess the effectiveness of the team and the methods themselves.
Title: Implementation of an Improved EHR System
Name: Aayush Shah
Preceptors: Nomaan Ashraf, MD, Orthopedic Spine Surgeon
Agency: Comprehensive Spine Care, P.A.

Purpose: To implement a new Electronic Health Record system throughout the four offices of Comprehensive Spine Care, P.A. in order to improve efficiency in billing, scheduling, communication, and the overall patient care experience.

Significance: It is estimated that nearly 30% of all spending in the United States healthcare industry is inefficient and essentially wasted (Shrank, et al., 2019). In a nation that spends more on health care than any other country in the world, a value of over four trillion dollars, it is no doubt any degree of inefficiencies are detrimental for all factors of the patient care process (Waters & Graf, 2020). Furthermore, many outpatient ambulatory surgical centers, such as Comprehensive Spine Care, employ only 25 individuals, making every man-hour valuable and significant to overall expenditures. Inefficiencies in the form of documentation failures, scheduling errors, failure of care coordination, and billing discrepancies can all be eradicated with the proper and full implementation of an appropriate electronic healthcare record. This can in turn lead to more profits for the organization and possibly even more affordable care for the patient.

Method/Approach: Implementing a new EHR software first requires understanding the limitations of the current program. After deliberating with the medical assistants, billing department, Physicians, and administration, the next step was to determine what baseline necessities as well as the ideal program would possess. Research and communication with EHR providers in the form of meetings came next, allowing the team to become more familiar with the features of the various, potential programs. After taking into account pricing, limitations, user interface capabilities, and customer service accommodations, the most appropriate software was determined. Finally, repeat evaluations and critiques were made to best construct a variation of the program that fits the needs of the office.

Outcomes/Results: The goal of the project is to implement a new EHR system for Comprehensive Spine Care. This software will ideally possess capabilities for live patient notes during the Physician-patient encounter, a forum for communication with insurance agents, and billing software to accurately report and document procedures as per the updated Current Procedural Terminology (CPT) codes set by the American Medical Association (AMA), all while improving efficiencies in this process. The work conducted here plays a vital role in improving the patient care experience while making scheduling and treating patients as efficiently as possible.

Evaluation/Conclusion: A definitive conclusion on the effectiveness of the implemented program can only truly be determined after testing the software in the real world. Documenting all obstacles to delivering the expected and efficient patient care experience as well as monthly communications with the program developer will ensure swift amendments be made at the earliest possible time. Additionally, more frequent and transparent communication between the staff and administration of Comprehensive Spine Care will allow for the collective concerns of the new program to be evaluated. Due to the numerous stakeholders involved, follow-up evaluations can only be effective if active discussions on processes that work and need to be amended are made on a regular basis.
Title: Role of a Caregiver in the Oral Care Received by the Intellectual and Developmental Disabilities (IDD) Population

Name: Disha Shah

Preceptors: Dr. Irina Grafova, Dr. Patricia Findley, Dr. Emily Sabato

Agency: SPICE Project - Rutgers School of Dental Medicine, Newark, NJ

Purpose: To evaluate knowledge of oral healthcare and oral hygiene for caregivers of patients with special needs.

Significance: A literature review that included twenty-seven peer-reviewed studies has shown that those with intellectual disabilities often have higher prevalence of dental caries and periodontal disease than those who do not have intellectual disabilities (Anders & Davis, 2010). Prior studies found that 22.5% to 69.2% of adults with intellectual disabilities demonstrated a significant level of disease, demonstrating a clear need for better oral care to be given to this vulnerable population (Ward et al., 2019). This project will use surveys to better understand the quality of oral care given to the intellectual and developmental disabilities population to drive more evidence-based interventions in the future.

Method/Approach: Caregivers to special needs individuals (n=9) who sought dental care for their patients at the Rutgers School of Dental Medicine (RSDM) Special Care Dental Clinic and Oral Medicine Clinic in Newark, NJ were surveyed from March 9th, 2022 to April 6th, 2022. Respondents were surveyed on their oral care delivery, knowledge, and attitudes. Using SPSS we will conduct univariate analysis to determine frequency of variables.

Outcomes/Results: As of now, no definitive results have been found as the survey continues to be collected from participants. To date, nine survey responses have been collected, with most responses indicating that they have not received specific training related to the IDD population. The results produced from this study hope to demonstrate the quality of oral care that is received by those with IDD to drive further studies and encourage enhanced training of caregivers through interprofessional education (IPE) and further clinical practice.

Evaluation/Conclusion: Research findings will be looked at through statistical measures to dictate if survey results are significant and if oral care has improved throughout the years. With that, this project should continue on a yearly basis to understand the quality of care being given and see if improvements are being made by caregivers. An important limitation to this study is inefficient sample size, especially when comparing to past years’ data.

https://docs.google.com/document/d/1-WvFvd3staM5zoieSp5EEuI5shkLUUlu2GziBf5Vgbk/edit?usp=sharing
Title: Lunch and Learn Seminar - Mental Health

Name: Drashya Shah

Preceptors: Kate Brace - Program Development Specialist

Agency: New Brunswick Senior Citizen Resource Center

Purpose: To educate and raise awareness about the prevalence of mental health issues to older adults.

Significance: As time goes on, the world population is becoming older. Within the next 30 years, the proportion of the world's older adult population is expected to almost double from 900 million to two billion people over the age of 60 (WHO, 2017). About one in four older adults suffer from some type of mental disorder and due to the rapid aging of the population, the number of senior citizens suffering from mental disorders will also double in the next ten years (Mitchell, 2014). The most common disorders in this age group are depression, dementia, and anxiety with many others following behind (WHO, 2017). Unfortunately, many older adults with mental health problems are unable to recognize the early signs and do not get the treatment they deserve. The New Brunswick Senior Citizen Resource Center acts as an information hub for their senior citizens. They offer Lunch and Learn seminars where senior citizens are able to learn about healthy living, and my goal is to emphasize the importance of mental health and help senior citizens recognize the early signs and symptoms of mental illness.

Method/Approach: Research was conducted regarding the importance of mental health issues in the older adult population. The data was collected using credible websites such as the U.S. Department of Health and Human Services and the National Center for Biotechnology Information. A PowerPoint presentation was created using all of the facts and information to educate the seniors about the growing number of senior citizens, common mental illnesses prevalent in older adults, and healthcare gaps in treatment. This PowerPoint was presented via Zoom during a Lunch and Learn Seminar to eight senior citizens. To assess their comprehension, a pre and post survey was verbally administered over Zoom to determine the efficacy of the presentation.

Outcomes/Results: Before the presentation, 50% of seniors responded “Yes” in response to the pre-survey question, “How many people feel they have some basic knowledge about mental health issues in senior citizens?” After the presentation, the seniors were asked two follow up questions: “How many people felt that they learned something new from the presentation today?” and “How many people feel more confident about mental health issues in senior citizens?” For both questions, 100% of those in attendance stated that they learned something new today and felt more confident about handling mental health issues in older adults.

Evaluation/Conclusion: Based on the survey questions, it is reasonable to conclude that the Lunch and Learn Seminar positively impacted the senior citizens. After the presentation, many participants had questions about some of the mental illnesses in specifics and many others expressed their gratitude in regards to the seminar. One of the biggest challenges during this project was being unable to administer paper or electronic surveys for data collection, per the center’s privacy and confidentiality policies. In the future, this limitation would be overcome by conducting the presentations in person so it would be more interactive and comprehensible (this was not possible at this time due to COVID pandemic).
Title: E-Commerce Brand Hygiene for a Competitive Place in the Market

Name: Nina Shah

Preceptors: Melanie Treeson, Senior Director Strategic Operations, and Yaffa Franco, Senior Specialist Marketplace Operations

Agency: Packable - Islandia, NY

Purpose: Optimize product listings and determine growth opportunities on the back-end of Walmart, Target, Kroger, and eBay marketplaces to increase conversion rate and provide value to consumers.

Significance: Consumers worldwide turn to e-commerce marketplaces to buy products across many categories. If these products are uploaded or listed incorrectly, consumers may be left with a negative experience. For instance, with a shortage of supplies during the COVID-19 pandemic, consumers sought out different trusted markets to buy disinfectant products. For a consumer to initiate a transaction, the product information must be well-curated. Trusted marketplaces such as Walmart, Target, Kroger, and eBay must have accurate product information displayed on their sites for the consumer to digest easily. As a third-party retail seller, Packable challenges the status quo in working together to tackle brand hygiene and fix back-end errors for a smooth consumer experience. Updating listings with correct product information and accurate inventory ensures customer loyalty.

Method/Approach: To improve brand hygiene and provide value for consumers, the marketplace team determines the best-selling products and then updates the content on the product listing. Walmart Seller Central is used to figure out how a product is performing and the steps that need to be taken to create an exceptional product listing. Errors such as inaccurate product descriptions, image resolution issues, and other related information are examined to ensure the most up-to-date information is available for the consumer. Changes to the back-end system ultimately reflect on the consumer-facing front-end website, leading to an improved customer experience.

Outcomes/Results: By taking advantage of the growth opportunities, the marketplace team increased the quality of Packable’s assortment of Walmart’s listings from 62% to 66% in a short-term period. Focusing on updating best-selling products ensures the overall listing quality increases. Improving product listings creates more trust on the consumer end. It also leads to Walmart granting our account the Pro Seller Badge, which will make us a more trustworthy seller. The Pro Seller Badge increases visibility and gains consumers’ trust as an authorized seller.

Evaluation/Conclusion: Figuring out the best-selling products and updating those listings increases seller credibility and enhances customer experience. A high listing quality ensures that all the product information is filled out correctly for consumers to digest. The department will monitor the project overtime to ensure that the product listing quality score increases and that consumers can easily discover the content.
Internship Abstract

Title: Giving People Seeking Safety or a Better Life the #WelcomeToCanada They Deserve

Name: Hadiqa Shahid

Preceptors: Amanda Alampi, Senior Campaigner
Ziva Luddy Juneja, Digital Campaigner

Agency: Human Rights Watch

Purpose: To educate and mobilize the Canadian public to take action and gradually end their government’s practice of holding immigration detainees in provincial jails.

Significance: In 2020, the world faced an abundance of human rights challenges. These included issues pertaining to international justice, refugees, terrorism, etc. One tool Human Rights groups employ to raise awareness and combat these challenges is digital advocacy campaigning. Built on the back of grassroots research, investigation, and reporting, digital campaigns make it possible to learn about and address human rights issues in a unique but informative way. Through email to target online petitions, influencer marketing, and paid media ads, the Public Engagement Division at Human Rights Watch is currently running an online campaign calling on Canadian provinces (beginning with British Columbia, Quebec, and Nova Scotia) to cancel their contracts with the federal government which allows immigration detainees to be held in provincial jails, often under abusive and inhumane conditions.

Method/Approach: Since October 15, the #WelcomeToCanada campaign has been underway. Prior extensive research for this campaign has been documented by Human Rights Watch staff on the ground in Canada. Since February, ideas and content for Instagram and Twitter were drafted. This included creating potential hashtags, taglines, an online email to target action, and email samples for advocacy groups. Ten social media posts were shared on Instagram to highlight the campaign. Four separate videos acknowledging the state of Canada’s immigration centers and the stories of inmates were also shared. Ultimately, 21,951 emails were sent to provincial leaders in British Columbia, Quebec, and Nova Scotia, demanding that the federal government end its practice of incarcerating immigration detainees.

Outcomes/Results: Since the start of the campaign, 90,000 people have visited the #WelcomeToCanada website. Overall, the Instagram posts received a total of 11,868 likes, and the posts with the most interactions were those that included real stories of victims who had experienced life inside the detention centers. No reels, however, were posted on the Instagram page. Instead, actual videos of the conditions inside the detention centers were shared across social media to illustrate the inhumane abuse that immigrants had to face. Of the top five highest-performing tweets, the one with the best performance received 56 retweets and 370 likes. Similar to the results from Instagram, the highest performing tweets were the ones where real stories of people who were incarcerated in immigration facilities were shared.

Evaluation/Conclusion: To further amplify this campaign on social media, sharing content through the form of Instagram reels should be considered. Past Human Rights Watch reels have shown viewership as high as 95,000. Additionally, all five of the highest performing tweets also incorporated some type of visual imagery, including some type of emoji, graphic, and/or video. This strategy should be repeated moving forward. Enhanced and more creative social media practices should be implemented to direct a greater number of people to the campaign website who can put pressure on the Canadian government to end all human rights abuses against immigration detainees.
Title: Worker Productivity in current vs EPIC state: Authorization Process for Car T and Transfer Patients

Name: Preeti Sharma

Preceptors: Mary Kelso, Regional Director of Patient Access

Agency: Robert Wood Johnson University Hospital (RWJUH)

Purpose: To measure worker productivity when completing complex authorizations for CAR T and Transfer patients when using EPIC process vs the current process

Significance: Robert Wood Johnson (RWJ), is one of the latest hospital systems to join in implementing the electronic health record (EHR) EPIC. EPIC, which contains over 253 million patient records and in 2022 was ranked the # 1 EHR for the 12th time in a row; the EHR will help RWJ to streamline their healthcare processes by connecting various departments into one system like billing and registration and consolidating their various patient portals, applications under one system. This project contributes to the installation of EPIC by comparing worker productivity when undertaking the complex authorization process (C.A.P) for two types of patients CAR T and Transfer; in the current system vs EPIC.

Method/Approach: First, research was done on the C.A.P, and CAR T patients. Second, workflows were created. The workflow for the C.A.P for CAR T patients were obtained, and for Transfer Patients meetings were held to map out the current workflow, and gather documents. Transfer Patients had 11 steps and CAR T Patients had 7 steps. In EPIC the process was simplified down to ~ 5 steps and there were three main benefits. 1. Hard stops meant that errors/missing information had to be fixed before the next step can be started 2. Systems were reduced and consolidated into one place 3. Because the systems were connected, information that had been already inputted (ex. Diagnosis codes) would be pre-populated for future steps. Finally, all the workflows were made into images and both were inputted into an excel sheet that can be crosswalked.

Outcomes/Results: Upon analyzing the excel sheet The increase of 40 - 50 % in workers productivity was measured in two ways: 1. Creating 3 equations that combined the amount of systems and documents used for CAR T, Transfer Patients and EPIC. 2. Total process completion times were compared for CAR T, Transfer Patients and EPIC.

Transfer Patients = 3 emails + 1 insurance website + 5 systems + 6 documents

• Total process time = ~ 2 days

CAR T = 3 emails + 1 insurance website + 5 systems + 23 documents

• Total process time = ~ 7 days

EPIC = 1 system + 1 insurance website

• Total process time = ~ 4 days for CAR T Patients
• Total process time = 1 day for transfer patients

Evaluation/Conclusion: In completing this project, it is clear to see the benefits that installing EPIC will provide to the patient access department. In addition a true evaluation will not be possible until all the hospitals have installed and used EPIC. This is because until all the hospitals are accustomed to using EPIC, some old systems will need to be used to help the transition process.
Title: Implementation of Updated Sign In System

Name: Roshni Shenoy

Preceptors: Rani Patel - Office Manager

Agency: Medicenter Urgent Care of Edison

Purpose: To implement a new sign-in system for patients to use to increase efficiency of COVID patient influx and urgently needed care.

Significance: According to the CDC, the flu has resulted in nine million - 41 million illnesses, 140,000 - 710,000 hospitalizations and 12,000 - 52,000 deaths annually from 2010 to 2020 while COVID-19 has infected over 78 million people in the United States (CDC, 2022). In New Jersey alone, there have been reported to be over 1,000 COVID cases weekly (NJ Health, 2022). Medicenter Urgent Care of Edison strives to provide quick and comprehensive medical care for patients of all ages without compromising quality care. With the pandemic, it has been increasingly important to prioritize patient satisfaction while also decreasing risk of illness simultaneously. By creating a new sign-in system catered to limiting staff to patient and patient to patient interaction, there will be a decrease in wait time as well as spread of illnesses. This will allow the facility to ensure the safety of staff and other patients.

Method/Approach: The wait time can be anywhere from 20-minutes to an hour or more depending on the patient volume. The facility keeps track of how many patients come in on average, how many leave without being seen, how many choose not to wait in the waiting room, etc. To reduce the wait time and increase patient satisfaction/efficiency, a sign in system was implemented so that patients are able to hold their place in line, know roughly how many patients are in front of them, and wait elsewhere to limit exposure. This allows them to minimize exposure and stay familiar with the wait time as it gets closer to their turn.

Outcomes/Results: From the 100 phone calls received daily, at least 40-50 of those calls are pertaining to the wait time and how quickly they can be seen by the doctor. That is about 40% of possible new or existing patients expressing interest in being seen for a visit but often shy away because of the wait time. From the 50 patients that walk in each day, about five to ten leave and say they will come back another day/time because the wait time is too long for them. With the implementation of this sign in system, the amount of time to register an individual decreased significantly from about 10-15 minutes per person to about five minutes per person. This meant that the wait time was almost half of what it used to be and when polled, eight out of ten patients reported being satisfied with their visit.

Evaluation/Conclusion: After implementing the new sign-in system, there was a noticeable decrease in the number of patient complaints/questions regarding the wait time via phone, email, and Google Reviews. As the overall patient satisfaction increased, so did the Google reviews. The once negative reviews pertaining to the extensive wait time changed to positive comments detailing experiences with the staff and healthcare providers. The focus shifted from the wait time to the actual visit itself which satisfied the staff as well as they now had more time to register patients and verify insurance details. Future plans include transferring this system to an online platform so that patients are able to sign in remotely and ultimately limit the use of paper resources. Limitations do exist with this sign in system due to the fact that people need to be in the office in order to check in and fill out necessary forms.
Title: Nutrition and Cancer Virtual Education Program

Name: Abhijeet Simak

Preceptors: Angela Austin, Patient and Community Outreach Manager

Agency: The Leukemia and Lymphoma Society

Purpose: To educate blood cancer patients about nutrition habits during/after treatment, and to inform them about ideal diets for improving immunity.

Significance: Cancer, like any disease, can be combated more efficiently with proper nutrition and a healthy diet. Food provides valuable nutrients to blood cancer patients. Eating well during treatment helps to speed recovery, ease side effects, and keep the treatment plan running smoothly (LLS, 2015). Malnutrition, like not eating enough or not eating the right foods, can cause harmful effects for blood cancer patients, including higher risk of hospitalization and poorer quality of life. About 34% to 39% of patients with cancer are malnourished (Abraham, 2017). With the major goal of reaching as many patients as possible, the Society hosts virtual events via Zoom to inform and assist patients regarding certain topics, like this one.

Method/Approach: The virtual education program was set up through an outline of the program and a design for a flier. The main highlights of the program were to provide a better understanding of the importance of nutrition and dieting plans during cancer treatment, explain risk factors with improper nutrition, and explain the effects of nutrition not just during treatment but after treatment and for survivorship as well. Therefore, a program prep sheet was designed first, with these highlights listed as the major points of discussion. Research was performed on the impact of nutrition with blood cancer, and facts were listed under each highlighted point. Then, a flier needed to be designed to promote the program. The flier is laid out with a simple description of the speaker, who is a registered dietitian. It describes the purpose of the program, which is to educate blood cancer patients about the importance of nutrition, and it has links and a QR code to access the program on April 19, 2022, held on Zoom. The program is promoted through routine calls and emails to patients, since patients are always contacted for more information about the Society’s resources and services.

Outcomes/Results: The program will be held on April 19, 2022 from 5:30 P.M to 6:30 P.M. There are a total of 37 participants registered for the program. Patients have the ability to lay out specific diet plans, choose proper foods, and treat their cancer at a more efficient rate. Patients will leave the meeting with a better understanding of the importance of nutrition and the effects of nutrition on cancer, treatment, and survivorship.

Evaluation/Conclusion: There will be a program evaluation form emailed to each participant when the program ends. The form will first ask a few questions about the patient and contact information. The form will examine the program’s efficiency by asking questions regarding patient understanding, lessons learned, what was beneficial and what was confusing, questions posed by patients, and what was liked/disliked about the program. The form will offer information about the organization’s resources and services, so patients have access to information after the program ends as well. The program was successful as the evaluation forms showed positive feedback as well as 37 participants registering for the meeting.
Title: The Impacts of COVID-19 on Anxiety and Depression among Hispanic/Latino Essential and Non-Essential Workers

Name: Isabelle Souza

Preceptors: Pamela Valera, Ph.D., and Sarah Malarkey, Research Assistant

Agency: The Community Health Justice Lab (CHJL)

Purpose: To examine the impact of COVID-19 on feelings of depression and anxiety among Hispanic/Latino essential workers and non-essential workers.

Significance: Hispanics/Latinos are the largest racial and ethnic minority group in the United States, accounting for approximately 19% of the population (U.S. Census Bureau, 2020). Hispanics/Latinos are overrepresented in essential jobs (e.g., grocery, warehouse, cleaning). Due to their job function, they continue to experience a rate of infection from COVID-19 nearly twice their share of the population because of being on the frontlines (Center for Disease and Prevention [CDC], 2022). The COVID-19 pandemic has also increased the rate of depression and anxiety in essential workers across the globe (American Psychological Association [APA], 2021). Exploring the mental health implications associated with the pandemic in Hispanics/Latinos can help us better understand the needs of essential workers.

Method/Approach: A cross-sectional web-based survey and paper survey was distributed from August 2021 to April 2022 to examine the impact of COVID-19 on Hispanic/Latino health. The survey took approximately 45 minutes to complete and was available in Spanish and English. Respondents who identified as Hispanic/Latino and over 18 years old were eligible to complete the survey. Consent was provided prior to completing the survey. Participants were asked if they were considered essential workers (yes vs no). Bivariate analyses were calculated for these two groups including sociodemographic characteristics including age, race, sex, gender, sexual orientation, education, income, and employment status. Additionally, bivariate analyses were conducted to analyze whether people experienced more anxiety and depression during the COVID-19 pandemic. All reported p-values are two-sided, and p <.05 was considered statistically significant. Analyses were performed using SPSS v27 and SAS v9.4.

Outcomes/Results: Of the 458 participants that completed the survey, 174 participants (38%) are considered essential workers, and 284 participants (62%) are non-essential workers. The median (IQR) age for the total sample was 24 years (18), 26 years (20) for essential workers, and 23 years (17) for non-essential workers. Most of the sample identified as White (62%). About half (48%) of essential workers and almost two-thirds (61%) of non-essential workers reported that they are experiencing or experienced more anxiety during COVID-19. One-quarter (25%) of essential workers and one-third (34%) of non-essential workers reported that they are experiencing or experienced more depression during COVID-19. There was a significant difference in experiencing anxiety (p=.0072) and depression (p=0.046) among essential and non-essential workers.

Evaluation/Conclusion: The next steps will include adjusting for sociodemographic characteristics such as income, race, and employment status and/or analyzing for effect modification. Further exploration will be done to determine whether there are any differences in the results between ethnicities and countries of origin. Additionally, further research can consider the economic impacts of COVID-19 on housing and quality of life and its contributions to stress, anxiety, or depression.
Title: Rise Up Recovery Center Mutual Aid Meeting Evaluation

Name: Samantha Speirs

Preceptors: Kenneth Bae - Senior Peer Services Coordinator
            Philip Brunke - Recovery Engagement Manager

Agency: Rise up Recovery Center - Prevention Links

Purpose: To conduct a program evaluation to help determine which programs should be continued, replaced or improved.

Significance: U.S. Drug overdose statistics have increased by 25.8% between the years of 2020 and 2021. Individuals in recovery still have a 40-60% chance of relapse. The Rise Up Recovery Center provides free non-clinical substance abuse services to help combat these increasing rates. These services are valued by participants who are unable to afford other treatments and by participants already in recovery. This project served as a baseline evaluation of the mutual aid meetings offered. This evaluation allowed for evidence-based decisions to be made in regards to which mutual aid meetings are doing well and which need improvement or should be removed. These conclusions and adaptations can increase attendance and participation, as well as allow the organization to better tailor meetings to the participants coming into the program.

Method/Approach: First the Grants and Program Manager provided client participation data on the mutual aid meetings offered between 10/1/21 and 3/1/22. The mutual aid meetings analyzed the All Recovery Meeting, Harm Reduction, LGBTQ2+, Linx to Recovery, Dharma Recovery, SMART Recovery, and the Smoking Cessation Meeting. Activity attendance and demographic information had the most usable data for an evaluation. The data was transferred to an Excel spreadsheet to analyze mutual aid meeting attendance trends and referral trends.

Outcomes/Results: SMART Recovery, Harm reduction and Recovery Dharma consistently had the highest attendance rates over time. The LGBTQ2+ meeting had one of the lower attendance rates, ranging between 1-4 participants, however the patterns demonstrated were consistent and increasing. Linx to Recovery had a consistent attendance rate of 3-4 participants per meeting. There was a slight decrease in 2/2022, but appears to be increasing. The Smoking Cessation meeting showed to be the least successful meeting. Forty-five percent of the meetings had no participants and the maximum participants present was 3 which is the lowest max out of all meetings. The All Recovery Meeting was also not successful overall. Between 11/1/21 and 2/1/22 participant attendance rates decreased by 77.78%. Out of the 110 participants enrolled, 50% of participants were referred by an educational workshop, 21% from an event, 14% from Narcan training and 15% from other sources.

Evaluation/Conclusion: This program evaluation will help determine if some of the programs should be eliminated or reworked to get better attendance. It also highlighted which ones are the most successful and should be continued and even expanded. A majority of participants were referred by educational workshops, and those participants often follow the 12 step route to recovery. This data will help with future outreach efforts.
Internship Abstract

Title: Network Expansion to Address Community Health Needs

Name: Lori Srivastava

Preceptors: Direct Supervisor: Marissa Lewicki, MBA, Director of Marketing and Communications
Project Supervisor: Scott Wolfe, President

Agency: St. Luke’s University Health Network- Warren Campus -Phillipsburg, NJ

Purpose: To analyze market opportunities around Phillipsburg, NJ and propose strategies of addressing community health needs in the area to grow St. Luke’s University Health Network and help communities.

Significance: St. Luke’s University Health Network is one of the leading health networks with hospitals and services located in Pennsylvania and New Jersey. After the acquisition of Warren Hospital in Phillipsburg, NJ, the Network is looking to expand their services into other locations in the northwest New Jersey region where there is a demonstrated need for additional services.; this according to market research conducted on behalf of St. Luke’s. According to the St. Luke’s University Health Network Warren Campus Community Health Needs Assessment for June 2022, “Warren County has a ratio of individuals in the population of PCPs of 1,680:1, which is well below the state of New Jersey which has an overall ratio at 1,180:1” (Reed et al. 37). This observation proves that there is a lack of primary care physicians in terms of the population of Warren county. Through competitive analyses, community health needs assessments, and market opportunities, St. Luke’s will expand their services to populations who lack access to primary care physicians and other services.

Method/Approach: In an effort to refocus the task, the primary steps in this process were to examine how preexisting St. Luke’s facilities could be strengthened as opposed to new services being created. One of the existing departments looking to expand its services is St. Luke’s Occupational Medicine. Occupational Medicine builds relationships with employers in the area to allow employees access to St. Luke’s occupational health services, including physical examinations, care of work related injuries, and drug testing for jobs. A spreadsheet of over 800,000 businesses was compiled. From this list, the goal was to isolate businesses within 15 miles of three St. Luke’s clinic sites: Belvidere, Clinton, and Phillipsburg, NJ. This group of businesses was then further cut down to indicate only the businesses which had over 10 employees in order to target bigger companies.

Outcomes/Results: Using a pivot table, conditional formatting, and a distance calculating program, thousands of businesses were isolated and identified. There were 9,899 businesses within a 15 mile radius of Belvidere, 9,790 businesses within a 15 mile radius of Clinton and 15,571 businesses within a 15 mile radius of Phillipsburg. When these lists were shortened to indicate only the companies with at least 10 employees, the results were as follows: 1,467 businesses near Belvidere, 1,494 businesses near Clinton, and 2,629 businesses near Phillipsburg.

Evaluation/Conclusion: With the list of potential business relationships with St. Luke’s Occupational Medicine being cut down from over 800,000 to only a few thousand, the health network will be able to strategically begin creating relationships with these companies in order for their employees to access the health benefits of Occupational Medicine. Therefore, the initial goal of expanding the network has been refocused more towards strengthening existing departments to better serve the communities where the network already has a presence.
Title: Optimizing NU-DAY Program Enrollment through Community Partnerships

Name: Suhaila Still

Preceptors: Vivian Arroyo, Program Director

Agency: Prevention Links: NU-DAY Program

Purpose: To cultivate a network of partnerships with Essex County community leaders to help optimize NU-DAY program enrollment.

Significance: Amongst teens, alcohol and drug use is the leading cause of death or related injury. Even teens who use substances occasionally are at an increased risk of future drug and alcohol issues (University of Michigan Health, 2020). While it is estimated that 1.5 million teens meet the criteria for substance abuse disorder, roughly only 7% of those teens receive any type of treatment due to a variety of factors including a lack of consistent, quality adolescent programs (Winters and Botzet, et al., 2011). NU-DAY integrates peer support and community with therapeutic clinical services (mentorship, counseling, family support and social functions) to address youth drug use. This project will use different networking strategies to create partnerships in the community while increasing program enrollment, and expanding treatment services.

Method/Approach: The main goal of this project was to increase program enrollment by creating partnerships with community leaders in the Essex County area. One action taken to achieve this goal was conducting outreach through phone calls, emails, and attending committee meetings. The first step was to formulate a directory and outreach tracker of contacts involved in juvenile services. The next step was to reach out to local middle and high schools for referrals of at-risk youth. While attending committee meetings, it was vital to connect with community leaders in order to share program information.

Outcomes/Results: After twelve weeks of conducting outreach and attending community meetings, the total program enrollment number increased to twenty-eight youth participants. Previously, there were only thirteen kids considered active in the NU-DAY youth program. Eight of these participants became enrolled through outreach strategies consisting of sending emails with flyers and contacting facilities. Seven of these participants became enrolled through referrals from community meetings such as CIAAC of Essex and CNA of Union.

Evaluation/Conclusion: The expectations are to increase the number of youth enrolled in the program in an effort to address the issue of youth substance abuse. In order to measure effectiveness, the youth will constantly be surveyed and outreach tracker will be updated on a weekly basis. Youth are given entrance surveys which are used to address certain behaviors and challenges the individual may be struggling with. In addition to this, exit surveys will be given to the youth upon leaving the program or referral to adult programs. It is vital to optimize enrollment numbers, but it is even more important to ensure the youth stay consistent with the program. Therefore, this information will be reviewed each week to ensure the youth are attending meetings and meeting consistently with their mentors.
Title: Client Feedback and Program Evaluation of a Community Food Bank

Name: Rebka M. Tages

Preceptors: Ms. Quadai Palmer, President

Agency: From Jersey With Love - Asbury Park, NJ

Purpose: To analyze the program's growth by creating and collecting client surveys, including the increase in food pantry use and understanding the percentage of those who continuously receive the weekly services.

Significance: Individuals that reside in Asbury Park vary in income levels, which leaves a part of the population in need for assistance from various organizations such as food pantries to fulfill their needs. In 2020 alone, From Jersey With Love served many families by distributing 100,000 pounds of food and increasing that amount in 2021 to 250,000 pounds of food. This demonstrated the need for these aids to support individuals and their family members. By gathering surveys from the families, the organization will be able to improve access and implementation of the services provided. It aims to have a 5% increase in participation of eligible new families within a year. Increasing from 150 to 200 families per month. Overall, the survey analysis will help accomplish the goals that are set for the organization's future while improving the structure of the program to best serve the population.

Method/Approach: The main methodology and approach used for the project is via surveys. A google form survey was developed to gather responses in three different methods. These methods consisted of sending out a link to previous/current clients; making phone calls to those who do not have access to the link; and distributing physical copies of the survey to the families on one of the pantry days so that they could respond in real time.

Outcomes/Results: The survey results show a successful and well-managed program that meets the majority of the client's needs. 55% of those who took the survey chose Saturday as the best day to pick up the food rather than Wednesday. This information is critical as it is vital to understand which day works best for the clients and it shows that permanently switching from Wednesdays to Saturdays is essential to best serve the community at large. 83% of the responses showed that the clients are very satisfied with the helpfulness of the staff. While 11% were satisfied and 5% of the response was neutral. Overall, there aren't any negative responses toward the staff at the pantry. In addition, 89% of the clients who took the survey were very satisfied with their overall experience at FJWL, and the rest, 11%, were satisfied. This proves that the program is running smoothly by meeting its customer satisfaction goals. Regarding the nutritional value of the food items, 83% said they are very satisfied with it, while 17% are satisfied, which is another key component of the program; as far as the quality of the service, 94% of the client's responses shows that they are very satisfied and 6% being satisfied.

Evaluation/Conclusion: Based on the survey responses collected, the majority of the feedback is positive and ensures that the program is doing well. A few adjustments that would need to be made are permanently changing the pantry date to Saturdays and working on advancing and improving the program to reach 100% client satisfaction.
Title: Plastics Campaign Success Evaluation

Name: Madina Tall

Preceptors: Caleb Haddad

Agency: NJPIRG

Purpose: To increase campus and citywide bans on single-use plastic products by engaging the Rutgers community through events and petitions, in order to persuade the Executive Director of Rutgers Dining Services, Joe Charette to eradicate the use of plastics in all Rutgers dining halls.

Significance: While plastic has many great applications, we have grown hooked to single-use plastic products, which has serious environmental effects. Around the world, one million plastic bottles are purchased every minute, while up to five trillion plastic bags are used worldwide every year. According to the EPA, between 500 billion and a trillion plastic bags are consumed worldwide yearly, and each of those bags is used for an average of 12 minutes (UN, 2022). NJ residents use 4.4 billion plastic bags each year. These bags, which never fully break down, end up in our landfills, parks, beaches, along roadways, parking lots and in our waterways. NJPIRG is a statewide student-run organization started 50 years ago to make social change, work on issues such as fighting climate change, protecting public health etc. This Spring 2022, the priority campaign will work to address the issue of plastic pollution in New Jersey by banning single-use plastics from the University’s dining halls. With a total undergraduate enrollment of 35,844 (fall 2020), a city setting, and a campus size of 2,685 acres, prohibiting plastics from the multiple dining halls of Rutgers University would save hundreds of marine species from extinction and plastic ingestion on the Jersey Shore. Furthermore, streets, parks, canals, rivers, and gardens will become less littered, and populations will be safer.

Method/Approach: Petitions were collected around Rutgers campuses to ban the use of plastics in the dining halls. Another way of increasing awareness on the consequences of plastic use was by displaying informative posters both on campus and on social media. Collaboration with professional staff in the environmental policy field and members of higher authority such as professors was needed in order to take proper action. Research was conducted on different eco-friendly materials that could replace plastic.

Outcomes/Results: Around 1,300 signatures were obtained by students who expressed their concern and implication in the issue. More awareness was spread on the environmental damages caused by single-use plastic. After meeting with the head of Rutgers dining services, Joe Charette, the "Take it out of take out" bill was not passed this semester but he expressed his support for our cause and is willing to work towards plastic-free dining halls in the upcoming semesters. In the long term, passing this bill will reduce the use of single use plastics not only on Rutgers campuses but in the New Jersey community.

Evaluation/Conclusion: Anonymous surveys were conducted in order to assess the reach of information about the “Take it out of take-out” campaign on campus. Weekly campaign meetings took place in order to assess the organization’s progress. In the end, Joe Charette is in favor of the initiative but wants to see more support and students engaged. Furthermore, more alternatives to plastic should be established and implemented in the near future.
Title: Guide for Clinical Home Health Visits

Name: Jacelyn Tarn

Preceptors: Deborah Handler, Research Program Administrator

Agency: Global Tuberculosis Institute

Purpose: To produce a safety and cultural training guide for healthcare personnel conducting clinical home health visits.

Significance: Over the last couple of years, home health care services have continued to increase. Home healthcare workers are a vulnerable occupational group as they work in an environment with limited control over safety and health hazards that may arise (OSHA, n.d.). “Since 2005, the rate of violence in home health services has increased by 130%” (Leigh J. et al., 2004). Providing culturally competent care prepares healthcare workers to deliver quality care to patients with diverse beliefs and values (Tulane University, 2021). The project aimed to act as a training resource for home healthcare workers performing home visits to recognize a new area of potential hazards and take appropriate steps when conducting patient visits. In addition, it educated healthcare workers on improving cultural competence in their roles and building effective patient rapport.

Method/Approach: By interpreting scholarly articles and incorporating practical experiences from home healthcare workers who have conducted clinical home visits, the information had been prepared in a detailed guide utilized for training purposes. Analyzing the information present in articles and including the experiences of home healthcare workers resulted in identifying significant components of home visits. Shadowing staff members in the field and monitoring their tasks provided additional valuable insight for the guide. Communicating with different departments, such as the Education and Training department and field personnel team, ensured that the material was current, accurate, and informative. The guide aimed to identify new information that has lacked attention in available resources and regenerate material designed to be current and user friendly.

Outcomes/Results: The goal was to provide a guide that supported home healthcare workers safely performing home health visits. By communicating with different departments and individuals at the Global TB Institute, the project provided a detailed overview of essential concepts for home healthcare workers to educate themselves on as they prepare to visit patients in their homes. Elements of the guide included potential health hazards that could arise, a culture section to educate home healthcare workers about cultural competency, patient rapport building, and appendixes to provide additional expanded resources and recommendations. The guide had been published by the Education and Training department and available on Rutgers, Global TB Institute’s webpage. The guide could be accessed by any public health personnel or individuals visiting the site for training purposes.

Evaluation/Conclusion: The guide educated healthcare workers about preparation for home visits before and during the visits. It covered topics on health hazards, culture, and the importance of building patient rapport. The guide had limitations as it may lack information that a home healthcare worker encounters. Having healthcare workers and field personnel collaborate in the final edits ensured the guide’s accuracy and effectiveness. Public Health programs and health care personnel could easily adapt the guide to fit the needs of their organization.
Title: Quality Management Evaluation of After-Hours Patient Care

Name: Carlene Tavares-Walls, RN

Agency: VITAS Healthcare

Purpose: To improve the quality of care provided by hospice staff to patients, and to increase the satisfaction of patients and families with care received at the end of life, in New Jersey.

Significance: Implementing quality of care improvements and best practices, for excellent customer experience with, and satisfaction in hospice services provided in the United States. Published research in the past 30 years has indicated a beneficial correlation between health providers' ability to effectively communicate with patients and caregivers, and positive health outcomes. Centers for Medicare and Medicaid Services (CMS) use a tool to measure care provided by, and interaction with health professionals that impacts patients' and their families' overall experience, called the Consumer Assessment of Healthcare Providers and Systems (CAHPS). A post-death survey, conducted monthly, that seeks to obtain caregivers' perception of care provided to the patient. Communication is a Key Performance Indicator (KPI) of an agency's success. VITAS Healthcare trends below the national average, between 2019 to 2021, by 6% to 8%. The Triage department interacts with VITAS' customers after hours, on weekends, and during holidays, providing care and addressing needs, and is the setting used for this project.

Method/Approach: VITAS Healthcare has instituted enhanced communication training for their staff to improve their ability to actively listen, empathize, and explain the plan of care effectively, among other expressed needs, in their interaction with patients and families. VITAS Healthcare also conducts regular and random evaluations that scores staff's communication during interaction with customers, to exceed their customers' expectations and raise the scores of their CAHPS measure. These calls are scored on an average to achieve 90% or greater for the employee. Partial scoring is given for some areas that are completed as required. Some sections are ‘Key Performance Indicators with a possible score of zero if these areas are incomplete.

Outcomes/Results: Using data from 22 evaluations out of a total of 103 recorded patient interactions, between February 1, 2022 and April 6, 2022, the results found: 1) room for improvement in scripting, 2) obtaining consistent scoring of 90% and above in every evaluation, and 3) turning average quality score of 75.02% around by the end of June 2022. An area for improvement was the stipulated ‘introduction of silence time’, every 9 to 20 seconds, regardless of the length of the interaction. An area of quality result was patient assessments.

Evaluation/Conclusion: Using formal scripting, which is inflexible, during individual patient experience to fit every situation, also, using non-clinical evaluators with very limited healthcare experience and education to analytically score clinical personnel, makes it difficult to determine the eventual impact on VITAS' national satisfaction score at this time. Clinical personnel, such as nurses, should have been consulted as to how to better standardize the key performance indicators necessary for quality patient satisfaction. After all, patient satisfaction relies on employee satisfaction.
Title: The Importance of a Yearly Eye Exam

Name: Nicola Teves

Preceptor: Dr. Harin Rajeev, O.D.

Agency: Eye Care Associates of Princeton

Purpose: To encourage annual eye exams as a way to detect eye disease and combat Myopia/Nearsightedness in children.

Significance: Myopia is an ongoing epidemic and the recent increase in screen-time has only aided its progression. Routine Eye Exams are a great way to combat Myopia and other ocular diseases before it starts affecting you. Eye Care Associates of Princeton has various Myopia Management programs to help children keep their Myopia at bay. One of the programs involves Orthokeratology. For short, Ortho-K is a vision therapy that utilizes hard gas permeable lenses that patients go to sleep with. If the treatment is successful, the patient wakes up with 20/20 vision and slowed down myopia. The second program is CooperVision’s MiSight program. MiSight is for patients that don’t want to use hard lenses, as they are disposable daily soft lenses that provide vision therapy and vision correction. This project focused on these programs and providing a liaison for the patients.

Method/Approach: Myopia Management is best taken care of at a young age (six and up in our practice). The doctors would discuss the benefits of Myopia management to the parents. Parents who were interested were given the different options of Orthokeratology and MiSight. Questions about costs, protocols, and parents' concerns were answered. Marketing and/or public relations events were also used. Our practice participated in a Health and Wellness Fair on February 28, 2022 that showcased hundreds of businesses and brought in many local patrons. Lastly, we decided to train staff to initiate a short discussion with the patients prior to seeing the doctor. Our technicians would then discuss services we offer or they would suggest additional screenings that they would then perform on the patient.

Outcomes/Results: Between January 18, 2022 and March 31, 2022, there were ten Ortho-K patients and four MiSight patients compared to January to March 2021, there were eight Ortho-K patients and zero MiSight patients. A few patients were referred to us by their friends who were current Ortho-K patients of ours. We had a few interested patients from the Health and Wellness Fair but none that completely pursued the program. The four MiSight patients started off as Ortho-K consults from our doctors’ referrals or word-of-mouth from current patients, but based on the patients’ lifestyle, the doctor decided MiSight was best.

Evaluation/Conclusion: While amplifying our current patients’ experience didn’t exactly bring in the Myopia management patients we expected, our patients left our practice happier and more took advantage of new therapies compared to the previous year. Many of our in-house referrals and curious patients, turned down the program due to its high out-of-pocket cost. Another barrier was age. Contact lenses can be daunting for young children. Patients who were not successful with inserting and removing contacts were not included in the count but we hope to see them again in the following years whether it be for a routine eye exam or myopia management.
Internship Abstract

Title: Public Health Agency Feasibility and Fiscal Evaluation Study

Name: Jasmine Thai

Preceptors: Marc Morley, Economic Development Manager, The City of Santa Ana

Agency: The City of Santa Ana - Santa Ana, California

Purpose: To collect and analyze comparative data from four California cities with established public health departments to support fiscal evaluation and alternative policy options.

Significance: The COVID-19 pandemic continues to highlight gaps in public health. In California, counties provide public health services to the cities within their jurisdiction. Many cities are now looking toward creating a municipal health department, to service the unique public health needs of city residents. The Orange County Equity Map highlights socioeconomic and health disparities. Santa Ana houses vulnerable populations that hold some of the lowest Social Progress Index (SPI) scores in Orange County (Advance OC, 2022), indicating poor health outcomes. The study will provide a fiscal evaluation of a full local health department, as well as identify recommendations and alternative policy options, to allow The City of Santa Ana to better meet the public health needs of the residents.

Method/Approach: Data is collected by reviewing the annual city budgets of Long Beach, Pasadena, Berkeley, and Vernon. These cities are the only 4 cities in California with their own local health departments. All information is organized into an excel spreadsheet, into 4 different tables, by city, to provide an overview of each city’s local health department. The yearly budget, budget sources, and the number of full-time employees was collected for the fiscal years 2020, 2021, and 2022, for each of the 4 cities. A full personnel summary was listed if the information was available. Each city’s organizational charts, staff titles, and main public health functions administered are collected by reviewing each city’s health department website in detail. Health Management Associates (HMA) are collecting additional data from Orange County Health Care Agency (OC HCA), requesting the yearly budget and workload data.

Outcomes/Results: Long Beach, Pasadena, and Berkeley maintain the full responsibilities of local health departments. Vernon is an outlier, only maintaining environmental health functions. The City of Long Beach and Pasadena’s public health model and data are the most useful in performing the fiscal projections and estimating health inspectors. OC HCA data will be utilized in the fiscal analysis. HMA has found two central alternative models from Healthy People Public Health 3.0. This includes the Chief Health Strategist model and a multi-sector coalition public health model. Both models focus on forming community partnerships with local health organizations to provide preventative care and maintain wellness.

Evaluation/Conclusion: The two alternative models provide the City with options to expand public health services, without assuming the full responsibilities and financial risk of a local health department. OC HCA’s data is a limitation, as the County has not yet provided the full scope of data required to complete the fiscal analysis. CDPH governing guidelines for establishing a new local health department are a limitation, CDPH has not published these guidelines yet. In the future, the City Council will review the fiscal analysis and alternative policy options and determine which route to take action on.

References
Internship Abstract

Title: Patient Monitor, Clinical Operations Department

Name: Fatou Thiam

Preceptors: Tamanna Ahsan, Office Manager
Sara Barsoum, Nursing Manager: Patient & Virtual Monitors

Agency: Robert Wood Johnson University Hospital

Purpose: To work alongside the nursing staff as part of the Clinical Operations Department to ensure the safety of all patients who are considered high risk for falls.

Significance: At Robert Wood Johnson University Hospital patient care is at the forefront of its mission statement; being that this hospital is one of ten trauma centers in New Jersey, there is so much that goes into the maintenance of patient care. There are several factors that make patients vulnerable to falling: age, mobility problems, altered mental status and some medications. Studies have shown that falls occur at a rate of 3-5 per 1000 bed days and the Agency for Healthcare Research and Quality estimates that 700,000 to 1 million patients fall annually (PSNET, 2019). Where digital monitors for patient activity are not always accessible, Patient Monitors work to monitor any sudden changes in the patients, giving nurses the ability to place more focus on patients with more detrimental health-related issues.

Method/Approach: Ensure the health and safety of patients through completion of the Patient Environmental Safety Checklist during every shift and serving as a liaison between the patient and other professional medical staff. Patient Monitors are to maintain patient well-being in and out of the hospital room. Conducting environmental safety checks is a requirement for every patient room entered, wires, sharp objects, pens, anything deemed harmful needs to be either adjusted or removed. Alarm systems also serve as an intervention in preventing falls by alerting medical staff when patients attempt to leave their beds.

Outcomes/Results: Based on a 2022 Quality Summary Report for two different units in the hospital, data was collected on the basis of the number of falls within 109 and 164 days, as well as per 1000 patient days. With a yearly initiative of zero; Zero falls were recorded between January to March 2022.

Evaluation/Conclusion: Overall, Robert Wood Johnson University Hospital is following through with their goal to make sure that all patients are safe while staying at the hospital. Several situations have presented themselves where older patients are unable to get off or on their beds without assistance; the advent of bed alarms across multiple hospitals is a convenient system even when a Patient Monitor is in the room with a patient; hearing the bed alarm can notify medical staff that their patient may be awake or feeling restless.
Internship Abstract

**Title:** Funding for Substance Use Initiatives to Help Residents

**Name:** Jenny Tian

**Preceptors:** Direct Supervisor: Devangi Patel MPH, MCHES, Health Officer

**Agency:** Montgomery Township Health Department – Montgomery, NJ

**Purpose:** To demonstrate how grants like the State’s Alliance to Prevent Alcoholism and Drug Abuse Program can help counties like Somerset, receive the necessary funding to plan and develop prevention strategies that will help assist and educate residents on substance use.

**Significance:** Alcoholism and drug abuse harms not only the individual struggling with the disease but also those around them. In 2017, according to the National Survey on Drug Use and Health (NSDUH), 19.7 million American adults, who are 12 and older, battled a substance use disorder (Bose et al., 2018, p. 2). By being apart of the grant, the Somerset County Municipal Alliance will be able to allocate the given funds towards planning and developing prevention strategies. These programs will help open the conversation on substance use and provide the help that residents may not be able to seek themselves. This grant will not only benefit the community by empowering them, but also help work towards a healthier county.

**Method/Approach:** Quantitative data that had already been gathered from the past and present day were analyzed to show the improvements that have been made. More specifically, they were collected from the Somerset County Community Health Needs Assessment 2018 and Somerset County Community Needs Assessment 2021. This approach allowed me to gather statistical evidence to demonstrate how this grant has helped alleviate some of the concerns of the community over the years.

**Outcomes/Results:** From the assessments, there is a clear indication that concern of substance use has declined in not only the county as a whole, but in each racial group as well. In Somerset County, substance use, abuse, and overdose ranked third at 38% in 2018, but came in fourth place, at 16.3% in 2021, when it came to what the community thought was the top health issue or concern in their community (Health Resources in Action, 2021; RWJBarnabas Health, 2018). In 2018, substance use/abuse was in the top three health issues of concern for all ethnicities, except Asians (RWJBarnabas Health, 2018). In each ethnicity group, 21% or more of the community considered it an issue (RWJBarnabas Health, 2018). However, in the 2021 report, it can be seen that for all racial groups, substance use, abuse, or overdose is no longer in the top three, and less than 20% of each community believe it to be an issue (Health Resources in Action, 2021).

**Evaluation/Conclusion:** Substance use has dropped in ranking for top health concern in Somerset County, and there has been an ease of mind in each racial group. However, this does mean there are not more improvements that can be made. COVID-19 has greatly impacted how programs are delivered and is potentially a factor as to why there is not a greater improvement. For further studies, it is recommended that larger samples for all groups besides ‘White’ is gathered to ensure a more representative population.

https://docs.google.com/document/d/1YII5mOJ3clG1FN8SvfCVApe0VYQJfrVAVCM2DMfsVTw/edit?usp=sharing
Title: TI-ROSC Community Assessment and Implementation

Name: Ciera Torney

Preceptors: Morgan Thompson, MSW, CEO

Agency: Prevention Links, Union County

Purpose: To evaluate and advance Trauma-Informed Recovery Oriented Systems of Care (TI-ROSC) for Substance Use Disorders in Cumberland County through a comprehensive proposal.

Significance: As of 2019, 21.2 million Americans exhibit a substance use disorder [SUD], yet in 2018 only 11% of those individuals received the treatment they needed (Scutti, 2019). Often, individuals with a SUD do not have the proper knowledge and access to their available resources. To effectively execute practical approaches to lowering the rate of addiction, it is crucial to understand the interconnectedness of SUDs, Social Determinants of Health (SDOH), and TI-ROSC and how it impacts targeted communities. SDOH are a variety of conditions that affect a person's health and quality of life (Artiga and Hinton, 2018). By taking a "person-centered" approach, a successful system builds on the strengths and resiliencies of individuals and communities through peer support to achieve improved wellness for all in every SDOH domain (National Council, n.d.). As one addiction researcher states: 'The opposite of addiction is connection.' (Canadian Mental Health Association, n.d.).

Method/Approach: To improve the quality of services, a 42 question Community Needs Assessment was distributed to Cumberland County residents to assess their perspective on their recovery communities and the available resources. Responses were exported to a spreadsheet (44 responses in total), categorized, and made into the appropriate graphs. Utilizing the data, patterns and comparisons were constructed and a SWOT analysis and stigma reduction essay were developed. A literature review on the TI-ROSC framework was also conducted to correctly suggest the proper resources for Cumberland County through a person-centered approach.

Outcomes/Results: Significant findings from Cumberland County revealed residents presented a concern with housing and transportation. Additionally, residents disagree that their community is free of attitudinal barriers regarding Medication-Assisted Therapies (MAT) and free of stigma surrounding addiction. However, residents feel Cumberland supports peer support groups, and service providers understand the connection between addiction and trauma.

Evaluation/Conclusion: An evaluation of the county identified a vast majority of critical issues surrounding its corresponding community. Although the direct impact of the intervention was not able to be evaluated in the time allotted for the project, it is evident that the recommendations will bridge the gap between available addiction services and the recovery community.

CITATIONS FOR ABSTRACT
Title: Quality and Perception of Care Survey Evaluation

Name: Danielle Towle

Preceptors: Lisa Cox, VP Operations; Kerianne Belbachir, Director of Quality Improvement

Agency: Rutgers - University Behavioral Health Care (UBHC)

Purpose: To analyze monthly chart review results and quarterly patient perception of care surveys from each program within the organization to develop ideas to improve the overall quality of care.

Significance: Healthcare systems collect monthly Chart Reviews to ensure that clinical documentation is completely and accurately providing critical information to employees to deliver the most effective services possible. If the area in question does not reach 90% compliance, then there is room for improvement to more adequately provide care. Rutgers’ UBHC is committed to quality improvement initiatives that enhance our services and increase the quality of care for consumers and their families, yet only 5 out of 14 monthly chart review questions exceed 90% compliance (UBHC 2021 Chart Reviews). Healthcare systems also collect quarterly perception of care (POC) surveys to gauge the level of patient satisfaction with the services they have received. Rutgers’ UBHC specifically collects data from each program and facility, and is mandated to submit the findings to the McLean database. Some other responsibilities include streamlining this process through Microsoft Excel so that all of the results are in a submissible format.

Method/Approach: The University Behavioral Health Care system works to combat low compliance rates by adjusting physician and chart reviewer protocols to ensure that the reports are accurate and the process by which patients are treated is more thorough. Another way that the organization addresses quality of care is by reviewing patients’ perceptions of care through quarterly POC surveys for each program. Manipulating the raw data from these surveys into a form that is compatible with that of the McLean database allows UBHC to submit their patient satisfaction results. This manipulative work is very important because the ability to use Microsoft Excel in an advanced way reduces the large amount of tedious work.

Outcomes/Results: Patient perception of care data from the Outpatient, Intensive Outpatient, Coordinated Specialty Care, Early Intervention Support Services, Child and Adult Partial Hospital programs are being reported as the deadlines close. Utilizing this information from UBHC and comparing it to the national average according to McLean has yielded the following results. According to a sample hospital report from the McLean Basis Plus, the average global evaluation of Outpatient care from 2012 is 92.82/100. The average evaluation of care for UBHC Outpatient care in Q3 and Q4 of 2021 is 82.9/100. The average evaluation of care for UBHC Outpatient care in Q3 and Q4 of 2021 is 82.9/100.

Evaluation/Conclusion: Based on these results, the need for improvement in patient satisfaction is clear. Although the numbers achieved by UBHC are below the national average, there were outliers in the data that skewed lower than the majority of actual evaluations have shown. However, there is always room to improve, which is why the organization recognizes the importance of providing the highest quality care and accurately recording perceptions of care. Identifying particular problem areas through the POC surveys allows UBHC to take a strong approach to rectifying these issues.
Internship Abstract

**Title:** NBSCRC - Virtual Vitaly Program and Program Support

**Name:** Sarah Tran

**Preceptors:** Melanie Ford, Director
Kate Brace, Program Development Specialist

**Agency:** New Brunswick Senior Citizen Resource Center

**Purpose:** To research and identify free or low cost trips for seniors to enhance quality of life and provide entertainment.

**Significance:** According to Comfort Home Care, the more active the mind is, the less likely it is for seniors to develop cognitive issues or mental health problems. Similarly, the Nursing Home Abuse Center states that the biggest risk factors for depression in nursing homes are loss and grief, isolation, and declining health. By identifying free and low cost trips for seniors, it can serve to stimulate their minds, while the social aspect can help them cope with stress or anxiety as well as feeling less isolated. According to the American Public Health Association, socialization can help create a sense of purpose and improve their cognitive function, and is associated with health behaviors such as staying active. There are 1,000 members in the New Brunswick Senior Citizen Resource Center, all of which are 60 years and above, independent, and live in the city of New Brunswick. By being a part of this program support, this final project helps the issues by identifying ways for seniors to enjoy the community around them, enhance quality of life, and not feel confined to their homes.

**Method/Approach:** The project is being conducted by identifying various free or low cost trips within a 30 minute radius from the location of the New Brunswick Senior Citizen Resource Center. These trips will fulfill at least one aspect: educational, cultural, social, recreational or health related. Most members are not aware that a field trip program exists since it is not in operations due to COVID-19. The center needed help compiling a list of 10 or more trips they and the members could take after COVID-19. Google search is utilized to find locations that are free of cost or offer discounts for seniors. Nursing homes in the area were called and asked what trips they offer for their seniors in order to find and broaden ideas.

**Outcomes/Results:** At the end of this project, the New Brunswick Senior Citizen Resource Center will be able to offer fun and fulfilling trips for their members, thus enhancing their quality of life. The center plans to open up fully so the members can visit and be a part of these trips. The goal is for the members to socialize, which would help improve their mood, cognition, memory recall, and is associated with healthy behaviors such as staying active, according to the American Public Health Association. Traveling with peers can benefit the member's mental health as well.

**Evaluation/Conclusion:** This project can be evaluated by sending out satisfaction surveys via email to the seniors citizens at this center. Their mental health, physical health, as well as overall life contentedness can be accessed through these satisfaction surveys in order to understand the impact of this project on their lives. The project should be relooked at to keep it up to date and relevant at least once a month to see if the seniors are still content with the trips provided. The project should also be looked at and reviewed again once all of the trips have been completed, to ensure that the seniors do not feel bored going on the same trips repeatedly.
Internship Abstract

Title: SUNY Downstate Kidney Transplant Program

Name: Courtess Tucker

Preceptors: Mahalia French, MS RD CNSC CDN
            TH Clinical Nutritionist 11/Transplant Dietitian
            Transplant Surgery

Agency: SUNY Downstate Medical Center, Kidney Transplant program

Purpose: Combating food insecurities in the ESRD Kidney Transplant population. Finding disparities within this community and connecting them with available resources.

Significance: End-Stage Renal Disease (ESRD) is a medical condition in which a person's kidneys cease functioning on a permanent basis leading to the need for a regular course of long-term dialysis or a kidney transplant to maintain life (CMS, 2021). ESRD Patients in Brooklyn New York that utilize the SUNY Downstate more often than not suffer from food insecurities. This internship's significance is to find the food disparities where they exist and point the population to the source of aid.

Method/Approach: The project is being conducted to assess how the Brooklyn, Flatbush and East Flatbush communities face socioeconomic challenges and Health Disparities as it relates to the population that has End Stage Renal Disease (ESRD). The effect of poverty and compare them to state vs. national average. Challenges faced in this community from covid How covid impacted access to care; Vaccination rates and reservations and compare to state. Health impact on managing chronic illness Food insecurity and relationship to transplant patients. How malnutrition affects the kidney transplant population and outcomes. Food insecurity and transplant How many are food insecure. How are they paying for meals

Outcomes/Results: To combat these issues we printed patient handouts, streamlined the SNAP benefits application, Coordinated Social workers in the community to help, provided oral nutrition supplements and distributed food vouchers from insurance. Facilitated calls to insurance for covered resources. Provide food banks list. Upon discharge, each transplant recipient will be given a fold out poster with the listed community resources that will be available to them via telephone.

Evaluation/Conclusion: At the conclusion of this internship the kidney transplant recipients in low income communities of Flatbush, East Flatbush and Brooklyn will be able to access available food banks and other necessary resources in the area around their communities. Patients will show improved nutrition and healing at their post transplant visit with the Transplant nutritionist. Patients will also verbalize improved access to needed resources.

Title: Grief Facilitation for Children Facing Loss

Name: Julia Ullman

Preceptor: Susan Laird, Program Manager

Agency: Good Grief - Princeton

Purpose: To facilitate discussion about grief to children 3-10 years old who lost a parent or sibling by participating in activities while encouraging peer support and providing tools to rebuild their lives.

Significance: One in fifteen children will experience the death of a parent or sibling before the age of 18. In the United States, this equates to roughly 5 million children. These deaths have been exacerbated by the COVID-19 pandemic, which as of June 2021 resulted in more than 140,000 children losing a parent or grandparent caregiver. Good Grief provides free services for children who have experienced the death of a parent or sibling by teaching resilience and self-advocacy and fostering peer relationships. Access to peer support is shown to be beneficial for those dealing with death as it allows for individuals to share their experiences amongst those who have faced similar adversity, share coping strategies, and ultimately realize they are not alone in the grieving process.

Method/Approach: Children participating in Good Grief’s programs come to the center for their designated Night of Support. The night begins with a pre-group for facilitators and team coordinators to review the night’s activity and clear the mind in preparation for the Night of Support. Next, facilitators break into their group room to review the activity and determine the best method of approach for the given task based on their specific group members' personalities and needs. This is also a time to discuss the breakdown of roles, such as who will review group rules and who will lead the activity, to ensure the night runs smoothly. While this preparation is taking place, Good Grief families arrive at the center and participate in the opening circle run by team coordinators. This is a space for families to share their person who died. Once the opening circle is dismissed, participants go to their age designated room and the Night of Support begins. Facilitation occurs through guided activities and discussion. At the conclusion of the night, families participate in a closing circle and once they are dismissed, facilitators and team coordinators join back together for a post group to discuss how the night went.

Outcomes/Results: Despite grief being the most universal human experience it is often the one that is spoken of least frequently, especially in conversations with children. Serving as a facilitator during Nights of Support encourages participants to engage in conversation about grief with peers who are experiencing similar adversity. This work provides a safe environment for children to express themselves without judgment, fosters self-growth, and equips them with the tools to cope with crises.

Evaluation/Conclusion: The effectiveness of Good Grief’s services was evaluated using satisfaction surveys amongst 16 youth participants (n=16). When posed with the question, “Coming to Good Grief has helped me,” 9 participants (56.25%) answered that they agreed and 7 (43.75%) answered that they strongly agreed. Participants were also asked if “Good Grief provides me with a supportive community where I can meet others going through similar experiences.” A single participant (6.25%) answered that they were neutral, 6 participants (37.50%) agreed, and 9 (56.25%) strongly agreed. These results suggest that Good Grief’s services benefit grieving children. Surveys will be conducted every year to ensure continued improvement of the program and satisfaction amongst participants.
Internship Abstract

Title: Increasing Community Outreach Efforts for Central Jersey Diaper Bank (CJDB)

Name: Nila Uthirasamy

Preceptor: Direct Supervisor: Heather Nover, Executive Director

Agency: Central Jersey Diaper Bank

Purpose: To expand the CJDB’s partnerships with stakeholders in the community to increase funding and donations to support families in need.

Significance: 5.2 million babies and toddlers live in low-income families who cannot afford the cost of diapers, and 30% of mothers report diaper need (Smith et al., 2013). Helping families receive diapers eliminates $4.3 million in medical costs (Massengale et al., 2016). The CJDB provides families in need with free diapers and other essentials through volunteer support, diaper drives, and fundraisers. They are the dedicated diaper bank for Middlesex County, NJ, and the COVID-19 pandemic has dramatically increased the number of requests for services by 248%. In 2021, the CJDB was able to serve 2,120 families and support 406,237 diaper changes. However, community outreach with key stakeholders needs to increase to secure funding to meet the high demand for diaper bank services in Central NJ. This project involves building relationships with the local community through organizing a Community Advisory Council (CAC) meeting, designing a brochure for distribution to raise awareness, and creating a diaper drive toolkit for volunteers hosting diaper drives to further increase funds and resources for the CJDB.

Method/Approach: For the first project of creating a tool kit, The National Diaper Bank Network’s tool kit was explored and examined with the CJDB staff. After discussion, key topics for inclusion were listed, and the website Canva was used to design the kit. The brochure was also created using Canva and included information such as COVID-19’s impact on the organization, diaper need facts, and ways to support the CJDB. An outreach email was drafted with the Executive Director to initiate the CAC meetings. Next, the contact information of community partners was gathered, and an email was sent out. Responses were tracked in excel, and the meeting agenda is currently being planned for a virtual meeting.

Outcomes/Results: The final diaper drive tool kit is an 18-page PDF document that the CJDB has uploaded to their website. The CJDB has averaged one to two diaper drives a month in previous months. Since the tool kit’s release in March, the public has viewed the site 57 times, and the CJDB has eight confirmed diaper drives, a 300% increase in diaper drives. The CJDB also printed out the brochures and distributed 100 to the East Brunswick Regional Chamber Commerce Meeting and the public at a Rutgers University tabling event. While planning for the CAC meeting is in progress, 28 of the 43 partner organizations have confirmed their attendance, and the remaining have yet to confirm their attendance.

Evaluation/Conclusion: All three projects have increased communication with the local community and its partners, increasing opportunities for funding and raising awareness for diaper need support. The CJDB will send post-diaper drive surveys to volunteers hosting drives to evaluate the barriers and facilitators to running a diaper drive. Responses from these can help to understand better how the CJDB can support volunteers to increase diaper and monetary donations. The diaper drive tool kit should be updated with the latest organizational updates and statistics every two to three months. The CJDB will send a satisfaction survey to attendees after the CAC meetings. This will help inform future CAC meetings better by understanding what partners valued during the session and what they felt could be improved.
Title: Stress Assessment of Students Enrolled in the Rutgers Future Scholars Program

Name: Kristen Vazquez

Preceptors: Aaron Reevey, Senior Program Coordinator

Agency: Rutgers Future Scholars

Purpose: To assess the stressors that affect high school students who are members of the Rutgers Future Scholars program that are low-income high school students and will be first generation college students.

Significance: Each year, Rutgers Future Scholars accepts approximately 215 first generation low-income students into its program to assist them in their journey to college. Many of these students often feel very stressed and academically unmotivated due to factors such as less financial resources, poor time management, fear of acceptance, and feelings of isolation. Many first generation and low income students often elect not to attend college due to these reasons as well as a lack of knowledge on how to go through application processes properly and personal fears of failure. This often indicates a difference in academic performance and stress levels. A stress assessment will assess these differences in order to assist and improve stress levels among students who are part of the Rutgers Future Scholars program.

Method/Approach: A questionnaire completed by the staff of the Rutgers Future Scholars was given to the scholars of the program asking certain questions regarding their program as well as assess their stressors. Data for 217 scholars who are aged 13 to 18 years was collected through a Google form template. Of those 217 scholars, 176 participants answered the questions regarding their stressors. When being asked questions about their stressors, scholars had an open text box and were given the opportunity to individually write their answers.

Outcomes/Results: Of the sample size cohort that answered these questions (n=176), 24 scholars (14%) said they had no stressors, 16 (9%) had stressors related to focus, 21 (12%) had stressors related to motivation, 3 (2%) had stressors regarding college, 42 (24%) had stressors involving school and classes, 14 (8%) had stressors regarding finding themselves, 14 (8%) had stressors related to feelings of depression or anxiety, 17 (10%) had stressors involving time management, 8 (5%) had stressors regarding procrastination, 5 (3%) had stressors related to sleeping patterns, and 3 (2%) had stressors regarding familiar issues.

Evaluation/Conclusion: Only 14% of scholars (n=24) from the sample size cohort (n=176) indicated that they had no current or ongoing stressors. Introducing presentations on topics such as mental health, motivation, focus, time management, and college readiness as well as helping the scholars navigate school and providing academic assistance will serve as a successful plan of action to (a) increase the percentage of scholars who claimed to have no current stressors, (b) to help assess the stressors affecting the scholars, and (c) to assist the scholars in being able to manage their stressors.
Title: Integrating Equity into New Jersey State Government

Name: Isaac A. Velez

Preceptors: Dennis Zeveloff, Deputy Chief Policy Advisor; Jayné Johnson, Director, Office of Diversity, Equity, Inclusion, and Belonging (Office of Equity)

Agency: The Office of New Jersey Governor Philip D. Murphy

Purpose: To integrate and promote equity principles in New Jersey state policy and improve the outcome of state programs and services by expanding access to opportunities and increasing the presence and participation of historically underserved communities.

Significance: Black and Latino households in New Jersey face many disparities compared to their white counterparts. Ensuring that equity is incorporated in New Jersey policy implementation is an important action to diminish these inequities. For instance, in New Jersey, the median household wealth of white families is $322,500, while the average median household wealth for Black and Latino families is $21,900, presenting more than a $300,000 wealth gap. To address these disparity issues, The Office of Equity within the Governor’s Office aims to dismantle inequity within State government based on race, ethnicity, and other protected characteristics and to expand opportunities for underserved New Jerseyans.

Method/Approach: The first deliverable, in response to a federal mandate from the Biden Administration, was to develop an equity framework that supports the Infrastructure Investment and Jobs Act (IIJA) funding applications. This framework was drafted by researching national best practices relating to government equity principles and usage requirements for other federal relief funding. Additionally, a binding legal document and a data protection agreement were drafted to underpin the work of the Wealth Disparity Task Force (TF). The Office of Equity serves as the Governor’s Office liaison to the TF which is tasked with examining the causes of and remedies for the wealth disparities in New Jersey based on race and ethnicity. The agreement was drafted by conducting open source research along with reviewing office templates. Lastly, work was initiated to secure consultant support to advance the effort for an internal government equity infrastructure assessment, pursuant to the Governor’s Executive Order No. 262. This process was conducted by reviewing related State documents, while working with Governor’s Office staff and procurement staff within the NJ Department of the Treasury.

Outcomes/Results: The IIJA equity framework is still in its preliminary stages and under further review with state government stakeholders. Secondly, a five-page agreement and two-page data protection agreement were drafted for collaborators and researchers of the Wealth Disparity Task Force to adhere to. Copies were sent for further legal review. Lastly, considering the robust State contracting process, the document is continuously under development.

Evaluation/Conclusion: The implementation of equity priorities within the Governor’s office will help to reduce barriers that people of color face in New Jersey. While newly established, the Office of Equity has found success in ensuring that equity is intentionally integrated throughout the policymaking process. However, to sustain these efforts, the next step in evaluating the state’s success in diversity, equity, inclusion, and belonging throughout state government is to integrate them throughout the bureaucracy. This would help ensure that these equity actions are preserved and endure beyond the current administration.
**Internship Abstract**

**Title:** 2022 National Caregivers Conference - *Emerging Forward, Together*

**Name:** Cristal Velez-Rosa

**Preceptors:** Renata Svincicka, Community Health Manager

**Agency:** The Family Resource Network

**Purpose:** To assess how unpaid family caregivers in the United States were affected by the COVID-19 pandemic in four categories: environmental, technological, societal, and economical.

**Significance:** The nation’s 63 million family caregivers are front and center in providing everyday care. Changes due to the pandemic have disrupted many aspects of caregiving for these individuals, which includes a disruption in community and financial support systems, a smaller circle of caregivers, changes in family dynamics, transition to care in homes, etc. The Family Resource Network is hosting a National Caregivers Conference to create a space for meaningful support and collaboration to raise awareness because despite being such a vital part of our nation's healthcare system, their own well-being is often forgotten. This project focused on the planning and implementation of the conference planned for October 16-17, 2022.

**Method/Approach:** The first step in advancing the implementation of the conference was deciding on a theme. The next step was assembling a potential sponsor list. This was done by extensively researching public health establishments, past public health conferences, and analyzing sponsorship lists from previous National Caregivers Conferences. Next was crafting the sponsorship letters for the potential sponsors. Previous sponsorship request letters from past National Caregivers Conferences were used as a template. Next was deciding on a keynote speaker, workshop, and breakout session presenters for the conference. Topics of presentation must fit the conference theme and potential speakers must meet our criteria of having background and experiences as a caregiver. A crucial step was providing support on social media by sharing posts specifically broadcasting information on the conference as it was being updated on the website. The content mainly came from the National Caregivers Conference website and social media pages where there are constant updates on registration, important dates, chosen keynote speaker, presenters, and sponsorship opportunities.

**Outcomes/Results:** As of March 28, 2022, 420 potential sponsors have been identified and 54 speaker proposals were received. In result, the conference committee decided on Racheal Fosu as the keynote speaker and out of the 54 proposals, 21 speakers were selected.

**Evaluation/Conclusion:** The ultimate goal of the conference is to bring together individuals who share a passion for caregiving in hopes to create a reinforced community that will provide the necessary resources for caregivers across the nation by coming together to create long-term relationships in hopes to in the end, improve the services available to caregivers.
Title: Expanding Access to Cancer Information in Dallas County, Texas

Name: Stefany Vigo

Preceptors: Andrea Semlow, Cancer Screening and Prevention Program Manager

Agency: Parkland Health - Dallas, Texas

Purpose: To provide equitable access to information on cancer prevention, screening, and cancer care services at Parkland Health in an effort to reduce health disparities.

Significance: Access to cancer screening and other forms of cancer care are affected by a variety of factors, such as transportation, health insurance, and education. The community served at Parkland Health varies from the national average, with 22% of patients diagnosed at a late stage, compared to the national average of 16% (Parkland Health, 2021). Fifty-nine percent of cancer patients served at Parkland are uninsured, compared to the national average of 2% (Parkland Health, 2021). The cancer program hopes to reduce inequities and address disparities present in cancer care in Dallas County by informing their community of the resources available to them through the use of social media accounts on Instagram, Twitter, and Facebook. With increased access to knowledge around cancer prevention, screening, and symptoms, Parkland hopes to increase awareness and reduce disparities found in cancer care.

Method/Approach: For this project, the internship consisted of creating social media posts for the Cancer Program at Parkland Health website and their accounts on Instagram, Twitter, Facebook, and LinkedIn. Responsibilities included promoting cancer awareness days and months through social media as well as ensuring that the information being provided is accurate and readable for a general audience. By completing an action item plan as well as a timeline, a schedule of all assignments due for the rest of the semester was made. The action item plan and timeline was used as a guide for completing assignments and recording progress throughout the internship. There were semi-weekly meetings with the preceptor to discuss assignments and to ensure that all goals were being met. Creating social media content that spreads awareness of cancer care to the Dallas County community was one of the assigned responsibilities. The goal was to achieve a good amount of engagement on social media in order to reach many people and inform them of the cancer screening guidelines for early detection, resources for prevention, and general information about cancer care.

Outcomes/Results: At the end of the project, the goal is to reach a high engagement rate through interactions and profile visits. The bigger picture of this project was to raise awareness of cancer screening and access to information about services available to Dallas County residents. Our recommendations will hopefully promote health in this community. The results of this project have not yet been determined and should be completed by May 2022.

Evaluation/Conclusion: One will know if the project was successful when information is received on the engagement data on Parkland Health’s social media accounts. An increase in the number of engagements will signify that there has been success in reaching a broader audience as well as relaying valuable information to them. There will also be an evaluation at the end of the internship with the preceptor to go over my performance during the internship. Consistently checking engagement data on their social media accounts will ensure that they are working towards reaching their goals in increasing awareness of cancer care.
Title: Westfield Regional Health Department’s Response To Non-COVID Calls-To-Action

Name: Kayla Vuoso

Preceptors: Megan Avallone, MS, Health Officer

Agency: Westfield Regional Health Department

Purpose: To analyze the Westfield Regional Health Department’s ability to perform its non-COVID public health duties during the pandemic.

Significance: On average, 75% of emerging infectious diseases are zoonotic, according to the United Nations Environment Programme and International Livestock Research Institute (2020). In New Jersey, 105 health departments were tasked with managing their departmental duties while taking on additional public health responsibilities that the emerging infectious disease, COVID-19, brought to communities. In Union County, New Jersey, the Westfield Regional Health Department serves eight municipalities. Services include inspections, vaccine clinics for people and animals, responding to community public health complaints, and logging vital statistics. This review of the Westfield Regional Health Department will analyze if the beginning into peaks of the COVID-19 pandemic affected performing the non-COVID public health duties of the department. The goal will be to identify public health infrastructures that may have been weakened during 2020 into 2021 due to the COVID-19 pandemic.

Method/Approach: A retrospective review was conducted to assess response times of inspections and complaints brought to the Westfield Regional Health Department between 2019 and 2021. The data was provided from a specialized application the Environmental Department uses to categorize monthly reports. The data was analyzed and cataloged in Microsoft Excel to identify patterns. The pivot tables included 1) the number of monthly inspections and 2) response times to types of inspections and complaints. Each municipality was reviewed separately due to the communities having separate stakeholders. This method may allow the department to reevaluate how to perform public health operations when another emerging infectious disease outbreak happens.

Outcomes/Results: All municipalities reported restaurant health inspections and environmental complaints. The response times varied based on inspection types, complaints, and other factors such as the number of event inspections and additional walk-in inspections per month per municipality. For restaurant health inspections, data was evaluated for percent increases or decreases in reinspection responses. For example: in 2019, Municipality A averaged 26.96 days to close from the date of response. In 2020, Municipality A averaged 122.29 days to complete from the response date (77.95% decrease); and averaged 74.89 days to close from the response date in 2021 (63.29% increase from 2020 but a 64% decrease from 2019).

Evaluation/Conclusion: Limitations include the cooperation of civilian interactions. The department's efficiency was based on the timeliness of closing cases, but civilian interactions were an integral part of closing them. While the COVID-19 pandemic may have caused lagging timeframes for specific sectors, the Westfield Regional Health Department could keep pace with what was brought to their attention. Based on each municipal report, consideration may include accounting for active participation by residents and specific dates for when the case was open to closed. As of December 2021, complaints are logged monthly, and health inspections may be evaluated daily. Providing specific dates may allow this report to provide accurate timelines for future review.
Title: Fundraising for a Non-Profit Organization

Name: Jenna Walling

Preceptors: Wafaa Saad, founder and owner

Agency: Women And Families Ascending Association (WAFAA)

Purpose: To carry out a fundraising campaign for the non-profit, WAFAA Organization to raise money to support WAFAA’s mission and programming.

Significance: WAFAA Organization is a non-profit that is 95% privately funded. WAFAA has been serving others for more than 20 years. Since the Covid-19 pandemic the cost of living has increased dramatically. People can no longer afford their houses or food. We have seen an increase of people suffering from mental health issues and domestic violence. Nearly 52.9 million adults suffer from mental health illnesses and 10 million adults suffer from domestic violence in the United States. WAFAA Organization offers many services to help those in need and suffering. It offers services such as counseling for mental health illnesses, domestic violence, anger management and crisis intervention. They also offer a food pantry and shelter, emergency housing and legal assistance. The goal of this project is to carry out a fundraising campaign to support the WAFAA Organization.

Method/Approach: The major fundraising event is held on March 26. It is a dinner event at the Crowne Plaza in Saddle Brook, NJ. There will be an estimated 150 - 200 people that participate in the event. There will be donations, raffles and silent auctions throughout the night. The WAFAA organization has a goal of raising $1000.00. The highest donor will be announced at the end of the night and rewarded with a prize. The information to promote the event was posted on all social media outlets and on Eventbrite. The organization sent over 1000 emails inviting various people to attend the event. Promoting all of the organization's social media pages throughout the event is essential to gain followers and supporters. The fundraiser will raise awareness of the WAFAA Organization and the services they provide. To promote all of the services and learn more about the WAFAA Organization is crucial since the organization relies heavily on donations.

Outcomes/Results: 132 people attended the fundraiser at the Crowne Plaza in Saddle Brook, NJ. A total of $1,465.00 was fundraised during the event. Out of all the donations, a total of $1,320.00 was collected. A total of 9 people donated. Our highest donor contributed $500.00 and was rewarded with 2 free nights to the Crowne Plaza. The raffle yielded $145.00. The silent auction produced $0.00 since nobody participated in it.

Evaluation/Conclusion: Overall, the fundraiser raised a great deal of money and supporters for the WAFAA organization. The success of this project was measured by the amount raised at the fundraiser. Overall, the donations collected were the largest contributor. The organization's goal was exceeded.
Title: Effects of Sexism on Mental Health and Efficacy of Intervention Programs

Name: Yumin Wang

Preceptors: Doctor Gloria Bachmann Associate Dean for Women's Health Director Women's Health Institute (WHI)

Agency: RWJMS Women's Health Institute

Purpose: To analyze the relationship between sexism and its effects on mental health in women, and determine the best intervention approach.

Significance: Sexism is an ongoing, systemic, and traumatizing issue that affects the well-being of women (The Representation Project, 2019). In addition, women who experience sexism are three times more likely to experience depression (The Representation Project, 2019). By devaluing femininity and women, and privileging masculinity and men, it directly affects the mental health of women and significantly increases psychological distress. Sexism takes place in schools, the workplace, in relationships, institutions, and public, it also takes part in increasing risky sexual, drug, and suicidal behaviors; but remains absent in political conversations. Therefore, it is crucial to address and bring attention to the effects of sexism on the mental health of women, the importance of challenging society, and detaching from exploitive sexist influences.

Method/Approach: Lights4Violence, an intervention program aiming to reduce sexist attitudes in young European people by promoting health assets, includes a quasi-experimental study of 1146 students from six different European cities, aged 12-17 years old (Sanz-Barbero et al. 2022). With no intervention conflict, this study conducted an online questionnaire before the intervention, and another one was administered approximately six months after the intervention ended (Sanz-Barbero et al. 2022). Subscales of the Ambivalent Sexism Inventory: benevolent sexism (BS) and hostile sexism (HS) are used to measure the difference in the two waves of questionnaires (Sanz-Barbero et al. 2022).

Outcomes/Results: The study of the Light4Violence intervention program states, “in girls, we observed a decrease in BS in the intervention group compared to the control group ($\beta = -0.101; p = 0.006$). In the wave2, BS decreased more in the intervention group compared to the control group in girls with mothers with a low level of education ($\beta = -0.338; p = 0.001$), with a high level of social support ($\beta = -0.251; p < 0.001$), with greater capacity for conflict resolution ($\beta = -0.201; p < 0.001$) and lower levels of aggressiveness ($\beta = -0.232, p < 0.001$)” (Sanz-Barbero et al. 2022). In reality, all cultures are affected by sexism differently, and it is a challenging issue that requires the attention of all individuals globally.

Evaluation/Conclusion: Previous research on Lights4Violence advocates the positive relationship of interventions in decreasing sexism in young women, promoting positive interpersonal relationships, and highlighting the importance of integrating young men into these changes concerning egalitarian relationships (Sanz-Barbero et al. 2022). By the same token, a study on the impact of gender discrimination on a woman’s mental health concluded, “because these more subtle forms of perceived gender discrimination are so ingrained in our societal systems, reversing them will be hard, requiring international cooperation from health and social advocates, and from government and policy-makers of all genders” (Vigod and Rochon, 2020). The effects of sexism on mental health will continue to be studied, and the influence of intervention programs on this issue will be monitored to improve their effectiveness.
Internship Abstract

Title: COVID-19 Vaccine Webpage Creation for Healthcare Providers and Patients

Name: Maci Wert

Preceptors: Dr. Selina Haq, President and CEO

Agency: New Jersey Primary Care Association (NJPCA)

Purpose: To create a COVID-19 vaccine webpage for New Jersey Primary Care Association’s members that focuses on vaccine hesitancy and misinformation in order to increase vaccination rates.

Significance: Since March 2020, over 900,000 people have died from COVID-19, and more than 4.5 million people have been hospitalized with complications related to the disease since August 2020. COVID-19 vaccines reduce the risk of getting infected with the virus and spreading it to others and can prevent serious illness and death. COVID-19 vaccine efficacy against severe disease remains greater than 70 percent over time; however, it decreases by 21 percent between 1 month and 6 months after full vaccination. It is extremely important to vaccinate the lower income communities as they have been disproportionately affected by the pandemic. The webpage will provide resources for health centers to use in order to combat vaccine hesitancy and increase vaccination rates in these communities throughout New Jersey.

Method/Approach: Microsoft Word was used to create outlines of the web pages with all of the content and information needed. Elementor is the WordPress builder that NJPCA uses for their website. The COVID-19 vaccine webpage team met in January to create an outline of the entire website layout and content. Google Scholar, CDC, and FDA were used to compile information. Webinars regarding COVID-19 vaccine hesitancy and misinformation were used for reference as well as Centers meetings.

Outcomes/Results: Six grids were created for the website within the NJPCA Clearinghouse COVID-19 Vaccine web page. These six grids are Storage & Handling, Vaccine Facts, Vaccine Hesitancy & Misinformation, Vaccine Promotion, Frequently Asked Questions, COVID-19 Vaccine News. A booster flyer was created for the “Vaccine Promotion” grid. The flyer discusses the benefits, safety, and timeline of the booster vaccine for people that may be hesitant about getting a third dose. Another flyer titled “What to Expect When Getting the COVID-19 Vaccine” was added to the “Vaccine Promotion” grid. This flyer discusses the process of getting the first COVID-19 vaccine for people that may be hesitant to get it because they are worried about the process of getting it. A COVID-19 vaccine screening and consent form was made for the “Vaccine Information” grid. This will benefit healthcare providers because they will have a standardized COVID-19 screening and consent form rather than having to make their own.

Evaluation/Conclusion: Because the information on COVID-19 is constantly being updated, making sure that the website reflects the most current data and recommendations requires constant research and updates to the website. The anticipated launch date is the end of May 2022. Hopefully the information provided, which will be used by healthcare workers, will help convince people who are vaccine hesitant to get the COVID-19 vaccine.
Internship Abstract

Title:  Ketamine therapy's efficacy in the treatment of major depressive disorder (MDD)

Name:  Alexandra Wolinski

Preceptors:  Kaylee White, MA: Clinical Site Manager

Agency:  Princeton Medical Institute

Purpose: To investigate and analyze the effects of intramuscular ketamine in the treatment of major depressive disorder (MDD).

Significance: Major depressive disorder (MDD) is a major psychiatric condition that impairs many people's ability to function. While antidepressants have been shown to be beneficial in treating MDD, they have drawbacks, such as a delayed start of action and the fact that many individuals remain treatment-resistant. Ketamine, despite its origins as an anesthetic, has been discovered to have antidepressant properties at sub-anesthetic levels. In individuals with MDD, intramuscular ketamine infusions resulted in a significant improvement in clinical symptoms and the elimination of major depressive symptoms, including immediate suicidal thoughts.

Method/Approach: Used Google Scholar and PubMed, to investigate patients with treatment-resistant major depressive disorder who received intramuscular ketamine therapy. Eight articles were found that related to treating MDD with ketamine. Most articles focused on short-term effects, and a couple looked at 2-3 years. Several study findings were measured through a PHQ-9 scale in which the PHQ-9 has a range of possible scores from 0 to 27, with higher values suggesting higher levels of depression.

Outcomes/Results: In an open study including a 55-year-old male patient with treatment-resistant severe depression, the initial infusion resulted in a significant reduction in symptoms, which peaked on the second day after the infusion. A single dosage of ketamine has been linked to a quick reduction in depressive symptom intensity in individuals with treatment-resistant depression, according to several studies. Ketamine infusion generates a reported initial 'high,' increased perception, and dissociative experience in the majority of subjects, followed by a rise in mood and a reduction in or eradication of suicidal thoughts and depressive symptoms lasting 3–6 days. Subjects with depression demonstrated a substantial reduction in depressed symptoms after 72 hours of using ketamine, according to many studies, and their depression rating scale scores dropped by 14.

Evaluation/Conclusion: Overall, the patient’s reports and scores show a removal of suicidal ideation and reduction in depressive symptoms. Patients also reported an increase in motivation, socialization and activity with mild to non-minimal depression severity. If patients have failed alternative therapies for treatment resistant depression, ketamine may be appropriate for treatment-resistant, severe major depressive disorder. Patients taking ketamine should be monitored by a psychiatrist who can assess if other therapies have been delivered correctly and monitor the trial's outcome.

Resources Linked
Title: Empowering Low Income High School Students with Health Education Strategies

Name: Jessie Yeung

Preceptors: Aaron Reevey, Senior Program Coordinator

Agency: Rutgers Future Scholars

Purpose: To guide, educate, and inform high school students from low income communities in New Jersey about health, mindfulness, and well-being.

Significance: Poverty amongst children and adolescents remains prevalent in the New Jersey. “More than 1 in 5 U.S. children come from families whose income fall below the 2010 federal poverty line of $22,314 per year for a family of four” (Poverty during Childhood and Adolescence May Predict Long-term Health, n.d.). Families of color including Non-Hispanic Black, American Indian, and Hispanic have higher rates of children in poverty compared to their Non-Hispanic White and Asian counterparts (Children in poverty by race and ethnicity: KIDS COUNT Data Center, n.d.). Poverty during childhood and adolescence has long term effects on health and well being. The body’s stress response system when activated for prolonged periods of time results in allostatic load, where the accumulation of chronic stress begins to wear and tear down the body. The body’s immune system begins to weaken leaving the body vulnerable to health problems like diabetes, cardiovascular disease, depression, etc. that can persist into adulthood (Poverty during Childhood and Adolescence May Predict Long-term Health, n.d.). Equipping children and adolescents with coping mechanisms and strategies to counteract stress will assist with their health and well being and the onset of disease.

Method/Approach: A cohort of 11th grade high school students from New Brunswick, New Jersey who have been selected as scholars through the Rutgers Future Scholars program will take a 60 minute workshop defining health & well-being, triggers of stress, and tactics to counter it. Scholars will be able to list and utilize stress management techniques that are personalized to them. Scholars will take a pretest and post test evaluation via google form to assess knowledge, skills, and beliefs gained through the educational workshop.

Outcomes/Results: Of the cohort (n=9), 0.1 were Asian, 66% were Hispanic/Latinx, and 22% were Non-Hispanic Black. 100% of the cohort scored 300+ on the Homles and Rahe Stress Scale for Youth. While 9 student scholars completed the pre-test survey only 55% completed the post test survey, a limitation of the study. Of the 55% that did complete the post test survey, average scores of the group prior to the educational workshop was 52% out of 100%. After the workshop the average score was 96% out of 100%. Prior to the workshop 60% of the participants felt confident in their ability to handle stress in their lives while after the workshop 80% of the participants felt confident in their ability to handle stress in their lives.

Evaluation/Conclusion: Many students felt they learned new pieces of knowledge they did not know going into the educational workshop on stress, health & well-being. There was a 41% change in scores that tell us that there was a change in knowledge. Limitations include small sample size, incomplete data, and insufficient number of questions in the pre-test/post-test survey. Student scholars overall did have a knowledge increase as they answered questions more correctly in the post test and a majority (80%) do feel confident they can handle stress in their life. References
Title: Migraines in women Pre and Post Menopause

Name: Dove Youm

Preceptors: Dr. Bachmann, Alison Cabinian

Agency: Women’s Health Institute at Robert Wood Johnson

Purpose: To research migraine headaches in women, particularly midlife and older women and analyze the medical causes, risk factors, and treatments.

Significance: Over 36 million people in the United States have migraines and around half to two thirds of adults around the world from ages 18-65 suffer from migraines. This chronic disorder is three times more prevalent in women than in men. Although the most affected group of women that suffer from migraines are pregnant women, this condition becomes an issue for midlife women that are going through menopause. The Women’s Health Institute is addressing this issue by collaborating with other organizations including the North American Menopausal Society and the NJ Ob/Gyn Society with a review abstract that shares the negative impacts that migraines have on a huge population of women to take a step closer to finding a solution.

Method/Approach: Using Google Scholar, PubMed, National Center of Biotechnology Information (NCBI), and other health-related sources, around 30 articles for this topic were identified. Ten articles reported on the difference of migraine prevalence between men and women, 7 articles focused on the peak ages of migraine susceptibility, and 10 articles talked about the risk factors. There were over 10 articles that listed migraine treatments, including holistic treatments.

Outcomes/Results: Using the gathered data, the information was categorized into segments that cover information about migraines in women. Three case studies involving the prevalence of migraines stated that women are more likely to develop migraines than men. There were 7 sources that also claimed the same. Along with that, 7 sources covered the topic of the peak ages of migraine prevalence in women. One of the studies found that women in the premenopausal group had the highest prevalence as well as women who had hysterectomies. The second case study concluded that the highest prevalence in women was during their 20s and 30s, with a slightly less high prevalence of migraines in their 40s. Three articles have stated that the most common reports of migraine triggers after stress are menses. Six sources mentioned that there are alternative treatments that should be used over Hormone Replacement Therapy. Holistic treatments included botox, acupuncture, yoga, chiropractics, and massage, acupuncture being mentioned the most.

Evaluation/Conclusion: Many references revealed that this is a common problem that afflicts 25% of women at one point in their lives. It was not difficult to find different treatments used overall, but there aren’t specific migraine treatments that are guaranteed to work on every single person because of the different types of migraines. There should be more research done on the biological effects that migraines have on women as well as more research on the exact cause of migraines in women because of the uncertainty. With this information, the Women’s Health Institute can collaborate with other women’s health organizations to create a collection of articles on their website.
Internship Abstract

Title: Reducing Health Disparities in Homeless Communities with Meals, Hygiene Services and Care Packages

Name: Amber Yuill

Preceptors: Kelsey Lynch, Co-Founder of Archangel Raphaels Mission

Agency: Archangel Raphael's Mission

Purpose: To assess the needs of the homeless community in Middlesex County and provide care packages to alleviate health discrepancies.

Significance: Families and individuals of lower socioeconomic class typically do not have enough money to afford the current cost of living in New Jersey, which is $2,000 on average a month. This often leaves families having to choose between bills that provide the most basic of necessities such as shelter, food, and clothing. According to the U.S census, there are approximately 59,132 individuals living below the poverty line in Middlesex County, while there is an estimated population of about 620 homeless individuals. Archangel Raphael's Mission (ARM) ensures that no basic necessity is overlooked for those who are in need. According to the Community Need Index, New Brunswick is ranked at a 4.2-5.0 which means a lot of community needs such as healthcare and basic necessities are unmet. Disadvantaged people can always turn to ARM for necessities such as food, clothing, toilets, and showers. Not only does ARM fulfill some of life's basic necessities for those in need, but it also provides a healthy socialization opportunity. Distributing the necessities increases the overall wellbeing of this population and increases the extent of preventative care.

Method/Approach: Archangel Raphael's Mission partners with the United Methodist Church in New Brunswick on George Street where hot meals are distributed to those in need, seven days a week. A portion of the ARM team portions and seals food in the kitchen, while the other members distribute food, water, utensils, snacks. Clothing and other hygiene services are also provided occasionally. Approximately 60-70 meals are distributed each day at this location, while a portion of these meals are transported to government funded temporary living in New Brunswick. A supplemental portion of this project includes contacting local clubs and organizations through Rutgers University, and larger organizations for donations and materials to create hygiene packages including essentials like undergarments, dental care items, and feminine hygiene products. Flyers were also created and advertised on social media to bring awareness to homelessness, ARM, and ways to donate and volunteer.

Outcomes/Results: As of mid April 2022 approximately 6,300 meals and 200 care items have been distributed to those that come to the dinner service. The service continuously serves about 60 people a day. Most of the people served are frequent diners while occasionally there are newcomers. Every Saturday, haircuts are also offered. Raising awareness by handing out flyers has also increased our number ARM’s interns and volunteers.

Evaluation/Conclusion: The essential services provided by ARM reduce mortality rates and increase preventative care access in homeless communities. The dinner service also provides support to those using the supplemental nutrition assistance program through the government. At the start of each month, our visits are less frequent. As the month goes on ARM gets more and more visitors. It is hypothesized that the dinner service provides additional support when funds allocated from the government are running low and third-party help is needed.
Title: Assessment of the Support for Child Welfare in Union County

Name: Isabela Bello-Zap

Preceptors: Gretchen M. Boger-O’Bryan, Director of Communications and Development

Agency: Court Appointed Special Advocates (CASA) of Union County

Purpose: To increase awareness for child abuse prevention and raise funds for the non-profit’s continued support for children ages 0-21 involved in the child welfare system via implementation of a Flags 4 Foster Youth display initiative and official proclamations from each Union County municipality in support of Child Abuse Prevention Month.

Significance: Each year there are approximately 2.9 million reports of child abuse in the United States. Specifically in Union County, there are 1,468 children involved with the child welfare system due to abuse, neglect or abandonment. Court Appointed Special Advocates (CASA) of Union County raises awareness to prevent proliferation of child abuse, recruits, screens and extensively trains community volunteers who are then appointed by family court judges to a specific case to advocate in the best interests of the child, and empowers youth in the foster system by connecting youth to resources and the experience of consistent, healthy bonds to adults in the community. In Union County specifically, there is a need to raise funds for nonprofits such as CASA of Union County so the support system and bridge between youth and the legal system can result in higher rates of placements and Kinship Legal Guardianships, while working to ensure already experienced trauma is not exacerbated while in care.

Method/Approach: A spreadsheet system was implemented to track communication with all 21 municipalities in Union County issuing proclamations for April, Child Abuse Prevention Month. In addition, all active volunteers and Board of Trustees members were subdivided into respective townships to track attendance at proclamation ceremonies. Furthermore, tracking was established of flags sponsored by community members through Paypal or Venmo to later be placed on a website-wide shoutout for their help in raising awareness against child abuse.

Outcomes/Results: Of the 21 municipalities in Union County, 12 agreed to issue proclamations for April, Child Abuse Awareness Month during a town council meeting. In addition, the Flags 4 Foster Youth campaign has generated a total purchase of 370 flags, raising $3,700 to go directly toward CASA’s mission. Furthermore, eight municipalities agreed to host Flags 4 Foster Youth displays at nine sites. Every site includes a lawn sign for community awareness and 400 blue flags, each flag representing 1 in 4 children involved in the welfare system of Union County due to abuse or neglect.

Evaluation/Conclusion: Out of the goal to represent the 1,468 child-victims in the welfare system of Union County through flag sponsorship by community members, 370 flags were bought so far, meaning nearly 25% of the goal has been achieved. In addition, approximately 60% of municipalities agreed to issue a proclamation for Child Abuse Prevention Month. Nearly 30% of municipalities hosted a flag display to raise awareness for child abuse prevention. Overall, social media marketing via Instagram, LinkedIn, Facebook, and emails via Constant Contact to BOT and volunteers, as well as telephone and email communication with town mayors and their staff is an effective tool for a) elevating child abuse to a broader health and safety context and b) involving community members in efforts to bring visibility to child-victims of abuse and neglect in Union County.
Title: Health Literacy Assessment of Resource Forms During Pre-Admission to Discharge

Name: Yamaris Zurita

Preceptors: Ayana Hamilton, MA, MSW, Chronic Illness Management Program - Programmatic Lead
Project Supervisor: Lauren Galifi, RD, Certified Diabetes Care & Education Specialist

Agency: Children’s Specialized Hospital - New Brunswick, NJ

Purpose: To evaluate the readability of resource forms provided for patients and their families during pre-admission to discharge for the Chronic Illness Management Program (CIMP).

Significance: According to the National Library of Medicine, approximately 9 out of 10 adults experience difficulties with health literacy. Hispanic adults exhibit the lowest level of health literacy, with Black/African-American adults following. Low health literacy is extremely prevalent among the elderly, minorities, and low-income families. Low health literacy can lead to limitations with access to proper healthcare and education for making well-informed decisions. Children’s Specialized Hospital aims for their literature to be accessible to a wide audience. This project studied the resources for participants with diabetes in comparison to their parents/caretakers during pre-admission, inpatient stay, and discharge.

Method/Approach: Researched common tools used to measure literacy levels of written documentation. Since the average age range of the children enrolled in the program are from ages 13-19, the hospital aims to utilize a 3rd to 6th grade reading level for any resources concerning patient/parent education. Next, patient and parent/caretaker resource documents were gathered from the hospital database. The documents evaluated for pre-admission were the CIMP FAQ Sheet, CIMP Program Description, and the CIMP website. For inpatient documents, the diabetes education resources utilized are from the Association of Diabetes Care & Education Specialists (ADCES) and pharmaceutical company Eli Lilly and Company (known as Lilly) along with individualized handouts created by the diabetes educator for certain patients and their families depending on their needs. For the discharge documents, the Discharge Health Care Plan was reviewed.

Outcomes/Results: The Flesch-Kincaid Readability Test tool was used to determine readability level of documentation suitable for the public. Score levels range from 9.1 to 16.1 grade levels, which is best suitable for high school education and college. The CIMP FAQ Sheet scored at a 9.5 grade level, CIMP Program Description scored at a 14.5 grade level, and the CIMP website scored at a 16.1 grade level. The diabetes educational resources from ADCES and Lilly which, in an assessment conducted by the University of California, Berkeley, received a superior suitability assessment of materials (SAM) rating. This rating means that their materials are suitable for their targeted audience. The Discharge Health Care Plan scored at a 9.1 grade level score. As for the individualized handouts, they are mainly images with short sentences that are reinforced with verbal descriptions.

Evaluation/Conclusion: The Flesch-Kincaid Readability Test tool is a great resource to utilize to get an idea of how readable documents are, but they do not measure comprehension since it focuses on sentence length, number of words and syllables, and complex words. Given that most of the information is spoken to the patient and their families with the opportunity to ask questions, the documents that received a more complex score were determined to be fairly easy to comprehend based on previous conversations during sessions with parents/caretakers.
Internship Abstract

Capstone Projects
Title: The Role of the Human Resources department in improving the Mental Health of healthcare workers.

Name: Sadaf Batool

Purpose: To analyze rising mental health problems among healthcare workers and discuss the role of the human resource department in ensuring higher workforce productivity and success.

Significance: Poor mental health is a significant cause of concern surrounding the workers of many types of organizations, this issue has however greatly impacted the healthcare workers during the pandemic. Healthcare workers, especially the front-line healthcare personnel are the high-risk population to endure emotional outcomes brought through the outbreak. Most reviewed studies reported negative psychological effects including post-traumatic stress symptoms, confusion, and anger among healthcare workers. “93% of healthcare workers were experiencing stress, 86% reported experiencing anxiety, 77% reported exhaustion and burnout, and 75% said they were overwhelmed” (“The Mental Health of Healthcare Workers in COVID-19”).

Method/Approach: The mental health program is designed to evaluate the mental health crisis among healthcare workers, with the help of the Human Resources department, in a step-by-step manner to increase productivity among workers. The key steps involved are Marketing, Data collection, Planning, and Implementation. The first step consists of marketing this mental health initiative by distributing posters and colorful flyers among high schools, college campuses, and educational institutions. Data collection would be communicated with the Human Resources department, which will then provide additional resources, increments in benefits, and programs catering to the needs of workers. For example: reducing employee workload by managing shifts adequately, providing subsidized meals, and paid vacation opportunities. It would also initiate the planning of the Mental Health Program for its workers.

Outcomes/Results: High productivity among health workers is the main goal of the program. This mental health initiative would result in raising employee motivation by ensuring that they receive access to mental health counseling services and individual exercise programs catering to their needs, within the hospital premise. In turn, the program would result in a highly motivated workforce, which appropriately addresses the needs of its patients and helps raise revenues.

Evaluation/Conclusion: This initiative would help reduce the mental health stigma on a community level, and encourage other healthcare organizations to invest in similar mental health programs for their workers. Such programs would ensure that healthcare workers treat more patients, and reduce the number of readmissions; resulting in greater financial returns. This program would also ensure that the organization invests in improved technology and research and development in the future.
Internship Abstract

Title: Maternal Mortality and Disparities Among Women in the United States

Name: Michele Caporaso

Purpose: To analyze maternal mortality occurrence among women in the United States and its disparities and propose interventions to reduce this occurrence.

Significance: According to the CDC, in 2020, 861 women were identified as having died of maternal causes in the United States, compared with 754 in 2019. Researchers estimate that 60% of pregnancy-related deaths are preventable. The rate of maternal mortality in the United States continues to rise, and as a result, various health disparities occur. MacDorman, et al. (2021) found that the maternal mortality rate for non-Hispanic Black women was 3.55 times that for non-Hispanic White women as well as Non-Hispanic Black maternal mortality rates from obstetric embolism and obstetric hemorrhage being 2.3 to 2.6 times those for non-Hispanic White women. This evidence indicates clear maternal mortality racial disparities and the need to emphasize the importance of researchers and practitioners coming together to strengthen evidence-informed policies and practices that can help improve maternal health determinants and outcomes nationwide.

Method/Approach: There has been an array of extensive research conducted regarding the occurrence of maternal mortality throughout the United States. This research was sought in order to assess the occurrence of maternal mortality throughout the United States. Key components and phrases used to gather this information include, maternal mortality occurrence, health disparities within maternal mortality in the United States, prevention of maternal mortality and improving maternal mortality. This research was found using journals, articles, and peer reviewed articles obtained through the Rutgers Libraries and PubMed. Statistical data was also collected through the CDC.

Outcomes/Results: Following an in-depth review of about 8 key articles and studies pertaining to maternal mortality and disparities research found that despite efforts to decrease maternal mortality, it has not improved in the United States and appears to be increasing. Much of the research conducted also found a serious racial and ethnic disparity in maternal outcomes of pregnancy. A literature review looked at the 2016–2017 vital statistics mortality data with cause-of-death literals added. The study confirmed maternal deaths, the 2016–2017 maternal mortality rate for non-Hispanic Black women was 3.55 times that for non-Hispanic White women. The confirmed late maternal mortality rate for non-Hispanic Black women was 3.52 times that for non-Hispanic White women. There also was significant research found to link the severity of disparity with the quality of hospital care. It was found that 75% of black deliveries in the United States occurred in ¼ of hospitals compared to 18% of whites delivered in those same hospitals.

Evaluation/Conclusion: The research found throughout these studies can help bring awareness to this issue and develop methods to reduce the amount of maternal mortality that occurs throughout the country. It can be extremely helpful to improve the reporting of maternal mortality occurrence as many studies have shown that a majority of vital statistics on maternal deaths are identified by the pregnancy checkbox alone, which has been proven to be unreliable in multiple studies. It would be beneficial to redevelop the reporting system of maternal mortality throughout the United States to get more accurate statistics overall. There can also be methods to address health care disparities as a whole. These include but are not limited to, policy interventions that focus on the social determinants of health targeting education and early childhood, urban planning and community development, housing, income enhancements and supplements, and employment. The ultimate goal of this research is to address why this racial disparity is occurring with maternal health care and to come up with a solution to reduce it.
Title: Assessment of Traumatic Brain Injuries in Young Student-Athletes

Name: Nicole Gomes

Purpose: To study and analyze the effects of traumatic brain injury in children and teens in sports and define what resources are available for students’ optimal recovery.

Significance: About 65% of all sports and recreation-related injuries treated in emergency departments from 2001 to 2009 occurred in people younger than 19 years old. Traumatic brain injuries as a whole are a contributing factor to a third of all injury-related deaths and disabilities in the United States. Among children under the age of 15 years, pediatric TBIs have accounted for nearly 1,500 deaths, almost 18,000 hospitalizations, and more than 640,000 emergency department visits in 2013 in the United States. The public health burden of brain injury is disproportionately high in children, especially teens and it is for this reason that we must bring more awareness to the topic.

Method/Approach: To further study this topic, different scholarly articles and books about the evaluation of prevention of traumatic brain injuries in these sensitive age groups due to sports injuries. The goal is to bring awareness in ways to prevent TBIs and protect our student-athletes from head trauma and help them get back to school during recovery. The databases used to prepare information on this topic came from the Rutgers University Libraries Database and Google Scholar. To get an overall sense of traumatic brain injuries on students, the search terms used in these databases were: traumatic brain injuries in students and traumatic brain injuries and children. To further support the research, searches for overall statistics on traumatic brain injuries were used such as: traumatic brain injuries in the United States and TBIs and treatments.

Outcomes/Results: Mental health issues may arise due to the setbacks that traumatic brain injuries cause; these issues must also be resolved along with other obvious therapies but they are often overlooked because they are not so apparent. Cognitive and somatic symptoms are some of the more obvious symptoms that arise with TBIs. Some of these symptoms are post traumatic migraines, memory issues, trouble concentrating, etc. All of these symptoms can be diagnosed with various tools, proper diagnosis is very important early in the injury which can be followed with therapies to accelerate recovery. CT scans and MRIs can be used right after an injury to determine the severity, while also using the Glasgow Coma scale. Pursuing and not delaying treatment can be highly beneficial for a speedy recovery; these treatments and therapies can include but are not limited to cognitive therapy, vestibular therapy and vocational therapy.

Evaluation/Conclusion: Focusing on diagnosing issues that arise from traumatic brain injuries can be key to a speedy recovery. There are currently programs and therapies in place for young student-athletes who suffer a traumatic brain injury. These programs and therapies can speed up recovery and make returning back to school easier. Two major limitations to research are the fact that even mild traumatic brain injuries may not show up in diagnostic imaging which then make it difficult for the student to be properly diagnosed. Another limitation is the fact that doctors and medical researchers cannot fully study the brain and see how severe some injuries are unless it’s post mortem. Spreading awareness can help the parents or caregivers of students who suffer from traumatic brain injuries to seek help and proper treatment so recovery can be as fast as possible. Providing more protection for student athletes such as better helmets or longer recovery periods in between concussions can prove to be very effective.
Internship Abstract

Title: Diabetes Management in Adults

Name: Brigitte Jimenez

**Purpose:** The review examined the effects of computer-associated diabetes self-management interventions on cardiovascular risk factors, patients' health status, and adults experiencing type-2 diabetes quality of life.

**Significance:** The risk of diabetes-associated complications can be reduced by using structured patient education programs. For instance, face-to-face group education is the current measure for self-management to manage type 2 diabetes conditions (Soderlund, 2018). Nevertheless, there is poor education attendance for people with diabetes. There is a likelihood of digital approaches or interventions increasing self-management access to training and improving results if their implementation is effectively done (Taggart et al., 2018).

**Methods/Approach:** A search for electronic databases for conference proceedings or trials from inception until November 2011. Relevant trials were searched from Medline, Cochrane Library, PsycINFO, Embase, CINAHL, and the Web of Science (Whittemore et al., 2019). The randomized, controlled clinical trials entailed a patient sample aged ≥18 years and experiencing type 2 diabetes mellitus (Gucciardi et al., 2019). The criteria for intervention inclusion were that they had to interact with users to produce targeted content that was structured to increase one or more self-management diabetes domains via advice, feedback, rewards, reinforcement, goal setting, patient decision support, or reminders (Habibzadeh et al., 2017). Reference lists from salient published studies were screened, and their authors were contacted to orient them to provide further information when needed.

**Results/Outcomes:** About 8,715 unique abstracts were yielded from database searches, and about 94 articles were examined for their eligibility. Only 16 varying studies comprising 3,578 research participants met the requirements for being included and were chosen for the study (Purnell et al., 2016). The 4 studies that searched for a change in understanding and knowledge for the cognitive outcomes showed positive impacts of the interventions on knowledge. Change in self-efficacy was evident in 2 studies, and all indicated positive implications of the programs. On the risk factors for cardiovascular, all of the studies used indicated HbA1c; as a results measure and 11 other studies offered adequate data to be used in a meta-analysis (Chatterjee et al., 2017). The pooled results showed a slight variation between 95% CI −0.37 to −0.05% of comparison groups and intervention, favoring the intervention group (Graham et al., 2017). The impacts of the use of the programs on physical activity were observed to be mixed. There is clear evidence that computer-based self-management programs show limited benefits on glycemic control by glycemic. However, a more significant impact was demonstrated by an analysis from the subgroup on mobile phone-based programs (Habibzadeh et al., 2017). The outcomes did not show blood pressure, depression, weight, and serum lipids improvement. The results also show no evidence of significant long-term impacts due to self-management interventions for diabetes type-2 in adults.

**Evaluation/Conclusion:** Self-management approaches that are computer-based in managing diabetes among adults indicate few benefits in their control by glycemic. The use of these interventions in managing type 2 diabetes has an insignificant beneficial impact on glucose control in the blood, which was more significant in the mobile phone-based subgroup. (Chrvala et al., 2016). Consequently, there was a lack of facts on how the program benefits cognitive, biological, emotional, and behavioral outcomes.
Title: The Mental Health Crisis and The Need for Interventions in the Era of COVID-19

Name: Kelly Mendoza

Purpose: To use literature and raise awareness about the mental health decline amongst frontline healthcare workers at the height of the pandemic in the United States and recognize the importance of making mental health resources accessible. This capstone project will also seek to acknowledge the significant role of healthcare leaders in improving the workplace environment.

Significance: Many of the pressures stemmed from the unpredictability of the COVID-19 virus, the collapse of healthcare organizations (HCOs) with the overwhelming volume of sick patients, and insufficient personal protective equipment (PPE). The psychological, emotional, and physical stress frontline workers continue to experience two years on should be reviewed to further reduce stress for nurses, doctors, and workers alike. The pandemic has placed doubt on FHCWs and their futures as health professionals. This public health emergency has led to 60 percent of healthcare workers dealing with some form of mental health problem due to their involvement on the frontlines, with approximately 30 percent doubting their future as health professionals (Wan, 2021). By 2033, there will be a significant healthcare worker shortage of over 120,000 physicians and an increased demand to hire nurses, further demanding an immediate response to this problem (American Hospital Association This public health emergency has also highlighted the importance of having solid leaders in the workplace who should have the skillset to mitigate the pandemic.

Method/Approach: Google Scholar, PubMed, and Academic Search Premiere were the databases used to conduct this capstone project. The following key terms would help with the selection process of helpful articles: the United States, COVID-19/pandemic, frontline healthcare workers, interventions, and hospital leadership. To further support the research, separate searches with similar terms were used, searching "Italy" and "China" instead of the United States to compare the different approaches to handling this public health emergency. When informative articles were found during the initial searches, looking at the reference list was also helpful if more data was required. Finding articles that addressed mental health during previous pandemics would highlight the progress and improvements needed to eliminate this issue.

Outcomes/Results: Most of the articles included were centered around mental health (10), while (4) pertained to healthcare leadership and (6) discussed interventions. Supplementary data was also used to demonstrate the progress made from previous pandemics, as well as offer different perspectives on the COVID-19 responses made by other countries. (5) articles briefly mentioned previous public health emergencies, (5) on China and (4) on Italy’s approach on addressing FHCW’s mental health. The mental health studies were consistent on the sources of stress that included: spreading the virus to family members (85.9%), PPE shortages (62.9%), insufficient training (53.9%) and the mental health stigma within the workplace, which led to FHCWs experiencing PTSD, anxiety, and depression (O’Neal, Heisler, Mishori, Haar, 2021). Between 52.7%- 87.8% of the participants from one study that took place during New York’s surge of infections early on in the pandemic, “endorsed moral distress” (Norman et al, 2021).

Evaluation/Conclusion: The studies have acknowledged that the pandemic will leave mental health sequelae for years to come, while also accepting that more research is required for future public health emergencies. Healthcare workers are amongst the most resilient workforce, but the pandemic has threatened their well-being. Future research should help strengthen the healthcare systems that COVID-19 collapsed.
Title: Assessment on deferring gay men from donating blood

Name: Keith Miller

Purpose: To determine whether deferring gay men from donating blood actually reduces the prevalence of HIV transmitted through blood transfusions.

Significance: The United States is currently facing the worst blood shortage it has seen in over a decade forcing hospitals across the nation to make impossibly difficult decisions on who is to receive donations and who must wait each day. Older adults, which make up a majority of the nation’s donor pool, are donating less as increasing age or health impairments prevent them from doing so. Additionally, there has been over a 62% drop in high school/college donations putting further strain on the blood supply. Men who have sex with men (MSM) are currently deferred for three months from their last sexual contact which significantly limits their ability to donate and strengthens the social stigma around their sexuality. Removing this restriction and treating all donors based on personal risk factors does not pose an adverse threat to the safety of donated blood and will help relieve the pressure healthcare is currently facing.

Method/Approach: Four of the major blood collection organizations (BCO) participated in a four-year study by submitting data to the Transfusion Transmissible Infections Monitoring System (TTIMS), a congregated data set to monitor diseases in the nation's blood supply, following the removal of the lifetime deferral on MSM in 2015. There have since been multiple studies looking at infections rates in the blood supply and how they compare to other countries that have already taken measures to allow MSM to donate. This is a multifaceted issue as there is also the interpersonal side of donating blood. To determine what new pre-screening questionnaires should look like BCOs in the United States and Canada selected participants to give their thoughts on the potentially new questions that would aim to gauge personal risk levels while excluding questions of sexual orientation.

Outcomes/Results: In the studies evaluated there was no significant change in the level of transfusion transmissible diseases, particularly HIV. Analysis of the TTIMS concluded that HIV levels in donated blood were 2.5 parts per hundred thousand (pht) pre-2015 change and 2.9 pht at the end of the initial four-year study which is not a statistically significant change. A similar study conducted in Australia found that HIV incidence in their blood supply did not significantly change before and after revised guidelines regarding MSM were implemented as there was an incidence ratio of .81 pre to post revisions.

Evaluation/Conclusion: Based on the data provided MSM should be allowed to donate blood provided they do not already engage in high-risk behaviors outlined by the FDA. Blood supplies should continue to be scrutinized for any marked increase in HIV incidence but there is currently not enough evidence to keep imposing restrictions on MSM who want to donate as hospitals need everyone they can get.
Title: Covid-19, The Economy, and its Effects on Housing

Name: Joseph J. Nam

Purpose: To examine and evaluate the housing trends due to the economic recession and the COVID-19 pandemic that is occurring throughout the nation and analyzing local New Jersey municipalities on housing trends.

Significance: Ever since the first case that was recorded in the U.S. on February 18, 2020, COVID-19 has killed over 934,000 people as of February 21, 2022, almost 2 years after the first recorded case (NYT, 2022). COVID-19 has caused shutdowns and the phenomenon known as the “Great Resignation” has occurred causing massive migrations from urban centers to the suburbs and exurbs in a time where urbanization was rising. This study will provide valuable insight on future urbanization trends and American housing trends where online virtual platforms such as Zoom have taken over the school and workplace eliminating the need for a commute to the workplace.

Method/Approach: Samples and studies from different workplaces across New Jersey that have been affected by the COVID-19 pandemic and has switched from in-person to utilizing virtual platforms such as Zoom. Utilizing and conducting a thorough literature review and placing importance and emphasis on statistics and samples. Data can be searched and utilized through academic databases such as the Rutgers Library and Google Scholar.

Outcomes/Results: Housing prices have skyrocketed along with rising rents have left urban areas across New Jersey to be vulnerable. Additionally, along with the housing crisis, the advent of virtual telecommunication services has left younger generations to desire to work from home rather than the traditional method of working at the workplace. Results show that working remotely is now a more attractive option and alternative for the younger generation.

Evaluation/Conclusion: The advent of new virtual technology has created new business sectors which eliminates the need for coming in to work. Brick-and-mortar retail declines and commuting would put less of a strain on major highways throughout New Jersey. Housing prices across exurbs, suburbs, and even urban areas will increase due to a bad economy and a need for larger housing for those who want to work remotely.

Citation Link: Citation Document - Google Docs
Title: New Brunswick Poverty Youth Education

Name: Facundo Saiegh

Purpose: To assess barriers in New Brunswick, New Jersey, and develop an educational plan for the youth community.

Significance: According to the United States Census, 11 million children live in families who are poor. That is a million child increase compared to 2019 (AECF, 2020). This is critical when COVID struck as it brought more stress to the family and children. Children need to be able to go outside and be involved in physical activities. Education will allow children to live healthier and more positive lives for now and in the future. Physical activities can help children in poverty to stay on the right path to success and with their longevity of health. It’s essential that children are aware of physical activities and the benefits of doing them. According to an NCBI article “stressors may lead to disease. This is particularly the case if the person has few psychosocial resources and poor coping skills” (Sneiderman, 2005).

Method/Approach: According to the United States Census, 34.1% of New Brunswick lives under the poverty line. 22.1% of the New Brunswick population is below the age of 18. Tackling the issue is to have a program in place in New Brunswick, New Jersey for children’s physical education. Educating will be done by having an app in place that will give daily recommendations to 100 people between the ages of 13 to 18. The app will allow teens to add research for the research team. The data will allow the research team to get more accurate and up-to-date data on the adolescents.

Outcomes/Results: It’s evident that children in more challenging areas also had a harder time during COVID. According to a scholarly article, stress can lead to “Chronically elevated blood pressure forces the heart to work harder, which leads to hypertrophy of the left ventricle (Brownley et al. 2000). Over time, the chronically elevated and rapidly shifting levels of blood pressure can lead to damaged arteries and plaque formation” (Schneiderman, 2005). The stress that these communities endure only got worse with COVID as an article states “The results of the survey showed that 61% of respondents had observed negative physical changes in their child since lockdown began in March 2020.” (Theis, 2021). One of the main issues is the lack of education on how beneficial physical activity is for the body.

Evaluation/Conclusion: This concludes that if children are doing physical activity and learning about greater health then they will have a more positive life. Stated in a scholarly article, “Our findings suggest that higher amounts of vigorous, but not moderate, PA are associated with more positive interpretations of ambiguity and that even small amounts of PA seem to be sufficient to promote this more positive valence bias when compared to individuals conducting no vigorous PA at all.” (Neta, 2021) Having an application to daily remind the participants, respondents can have a knowledge of physical activity and their own health. That being said, there needs to be more data collected in the region to determine if this has a lasting impact on children post COVID. If that is the case, then this program can be implemented in our troubled neighborhoods to help children cope with life after COVID.
Title: Assessment of Injuries/Deaths From Motor Vehicle Accidents Among Teens

Name: Alexa Shatilla

Purpose: To research one of the leading causes of deaths among teens, that being motor vehicle accidents, and propose ways that could help lower the occurrence in which teens are involved in fatal car accidents.

Significance: The CDC found that in the year 2019, nearly 7 teenagers a day were killed in the United States due to motor vehicle accidents. That totals nearly 2,400 teenagers that year alone. Teens ranging from ages 16 to 19 years old were found three times as likely to be in a fatal motor vehicle accident compared to drivers aged 20 and older. There are many factors that affect the statistics, including driver inexperience, nighttime driving, reckless driving, impaired driving, etc. This project will research and analyze these statistics in more detail, and propose ways to lower the number of teen, motorcycle related deaths.

Method/Approach: The research was gathered from scholarly, academic articles, and the recommended practices to reduce the number of car accidents and fatalities from such involving young/new drivers was concluded based off of the research’s findings. In gathering the statistics needed to support the fact that injuries/deaths among teens from motor vehicle accidents is one of the most leading causes of death among that age group and the risk factors that increase the rates of injuries/deaths, the analysis portion of the paper is organized into four categories; driver inexperience, reckless driving, late night driving/driving on the weekends, and impaired driving. In this order, data was gathered to prove the effects that these risk factors have on car accident rates among teens, as well as the overall statistics stating the number of teens that, on average, are injured/killed in motor vehicle accidents.

Outcomes/Results: New and inexperienced drivers have poor judgment skills/more trouble maneuvering their cars during potential dangerous driving situations, are more likely to engage in reckless driving, are more likely to drive at night, resulting in a higher fatal crash rate, and are more exposed to impaired driving. The research found that young/new drivers may poorly anticipate dangerous driving conditions, therefore not recognizing when to slow down, driving recklessly (which includes speeding, texting and driving, etc.) or in a hurry will increase a young driver’s risk of losing control of the steering wheel, teens aged 16 to 19 were nearly three times as likely to be in an accident that occurred at night when compared to adult drivers, and around 1/3 of high school students were exposed to or participated in impaired driving.

Evaluation/Conclusion: Car accidents and fatalities among new, young drivers can be attributed to many things, inducing driver inexperience, reckless driving, late night/weekend driving, and impaired driving. With the recommended techniques to help reduce such occurrences, the rates in which young/new drivers are getting into accidents, possibly leading to fatalities, will be reduced. To evaluate if the occurrences decreased, more time and research is needed. There was a lack of personal stories associated with this topic. There was an abundance of statistics, but not many personal anecdotes which would be beneficial in proving the statistics to be true as well as putting faces and names to the numbers that are seen. Modern technological advances in motor vehicles including electric cars, the installation of big screens/touch screens within them in replacement of buttons, among many other things should be considered for research as well, as they are distractions for the drivers.
Internship Abstract

Title: Analyzing the response to cybersecurity concerns in Public Health and the need for further investment in cybersecurity

Name: Kishan Sojan

Purpose: To research the effectiveness of cybersecurity efforts in healthcare during early COVID and to formulate recommendations on how to better move forward in the healthcare industry while grappling with cybersecurity concerns.

Significance: Cybersecurity is a sector of major importance in all industries across the world. It especially holds a consequential importance in healthcare due to the rise in telehealth/telemedicine and due to the attractiveness of the industry as a whole. Specifically, “world’s health data is often stored in old legacy technology, running on outdated operating software” (Hypponen, 2021). Due to the ability to exploit old software whose vulnerabilities are well known, “45 million individuals were affected by healthcare attacks” in 2021 compared to 34 million in 2020 (Landi, 2022). These attacks can then result in financial, emotional, personal and identity damage. Since this is an evolving field, it is important to understand what organizations have been doing to rectify this and what steps need to be taken to address the cyberattacks for the future.

Method/Approach: For the cybersecurity programs implemented during the beginning of COVID-19, for the current recommendations, and for the outcomes of cybersecurity efforts today, sources utilized were from cybersecurity consulting organizations, US Department of Health & Human Services, and reputable associations such as the Association of American Medical Colleges, American Hospital Association, and four other similar organizations. The data used in this research were sourced from US federal agencies and other non-government organizations. The studies and articles found for this research were found via National Library of Medicine, and Google scholar along with databases such as IEEE Xplore, and Web of Science from the Rutgers Library databases system. Reports and cybersecurity analysis were found on IT/tech websites via Google.

Outcomes/Results: Top tips by the US government to build a more secure security infrastructure included creating a culture of security, having stronger firewalls, and controlling access to the network and protected health information. These have been relatively successful since an educated staff resulted in reduction in success rates for spear phishing and attempts at unauthorized device access. However, it was also found that “just 31% [of healthcare organizations reported using] encryption extensively” while 49% used encryption somewhat according to Sophos News. This in combination with an increasing rate of cyberattacks along with 32% of healthcare employees claiming “they never received cybersecurity training from their healthcare system” (Greevy, 2022) resulted in the highest rate of cyberattacks in 2021.

Evaluation/Conclusion: The most important thing is to have a response plan in place in case of a cyberattack. “A Ponemon survey determined that 47% of organizations have not assessed the readiness of their incident response teams” (Pearlson, et al., 2021). Having a plan can help reduce and contain a cyberattack. Furthermore, establishing a security team and lead along with a cybersecurity culture has shown to be effective at reducing cyberattacks and effective in terms of response to cyber-attacks. Finally, the biggest recommendation for healthcare organizations is to invest more capital and resources into the cybersecurity infrastructure of their organization as cyberattacks are becoming more and more popular and disruption to patient care can result in potential loss of life.
Title: Food Insecurity Health Study

Name: John Wakefield

Purpose: To study and analyze the state of food insecurity and its effects on the health of the homeless population of New Jersey.

Significance: Food Insecurity has a major impact on the health of a population by increasing a person’s chances for negative health outcomes and health disparities. In 2020, Healthy People found that adults who were food insecure were at a higher risk for problems such as obesity and chronic diseases. Some factors that affect food insecurity are income and employment, and housing status. The risk of food insecurity increases as the funds to acquire food diminishes. This remains true when a person has to decide between eating for the day or paying for rent. The CDC reports that homeless individuals experience higher rates of health problems which can be from a lack of access to food. These factors help display the need to properly understand the underlying factors that cause food insecurity in the homeless as a means to improve health outcomes for this group.

Method/Approach: This paper utilized standards from the USDA Economic Research Service, and older standards that researchers such as Keenan follow to analyze food insecurity for different regions and populations. In order to properly establish a baseline for understanding food insecurity it was first observed on the international level. A comparison between multiple countries and their levels of food insecurity were analyzed. Part of the analysis process aimed to see what were the causes of food insecurity in their population and what they did to resolve it. Then, this approach was applied to the U.S. where the states and their levels were compared with New Jersey. The analysis of the states utilized the same analyzing techniques that were used in other countries. Finally, New Jersey was focused on and the extent of food insecurity for their homeless was observed. The process of observation looked at food insecurity for the homeless before and after the pandemic. This was done to see if food insecurity was still a problem for the homeless and if it was, then what were the causes for their food insecurity.

Outcomes/Results: This project aims to provide and display collective information that accurately describes the impact that food insecurity has on the homeless of New Jersey. Part of the scope of this paper aims to highlight how much of a problem food insecurity is, but also strives to explore the causes of it for this particular group. This includes clearly outlining what the key causes of food insecurity in New Jersey are and how those causes compare to other areas. The information can then be used to create better policies that address those issues. The point of comparing the key issues is that if another country has faced these issues in the past and overcome them, then the United States, and more so New Jersey can learn from them and attempt to adapt some of their methods.

Evaluation/Conclusion: The leading causes of food insecurity for the homeless in New Jersey were economic instability, access to food providing sources, and social practices. This compared with countries such as Japan and Norway where their causes for food insecurity were unemployment, mental health issues, and lack of food skills. In the United States, other states experienced food insecurity due to housing status, access to food, and food acquisition practices. This data will allow for the development of health policies that better aid in resolving New Jersey’s food insecurity issues. Further analysis is advised as policies are created to make sure that efforts are effectively resolving each of the issues displayed in this paper and that they are not creating new ones.
Internship Abstract

Field Internships
Title: Patient Experience and Interaction in the Radiation/ Oncology Unit

Name: Wajeeha Ahmad

Preceptors: Dhruv Sandilya, Assistant Manager

Agency: Memorial Sloan Kettering Cancer Center, Monmouth NJ

Purpose: To create a welcoming, nurturing, and stress-free environment for patients who are going through radiation treatment for cancer.

Significance: When individuals are diagnosed with cancer their entire life is flipped upside down and many considerations must be made. The stress and uncertainty around this time surrounding their health and wellbeing is unsurmountable and intense. Studies show that stress can affect the development, progression, and metastasis of cancerous tumors (Dehghan, et al., 2020). Therefore, it is the responsibility of the employees to ensure a smooth and easy cancer treatment experience here at Memorial Sloan Kettering (MSK) so that no additional stress is weighing them down.

Method/Approach: To provide patients with a wonderful and positive experience at MSK, employees use the All Care Together (ACT) principles. The ACT principles include coordinating the journey, fostering warmth, keeping it simple, meeting individual needs, minimizing uncertainty and restoring control. These allow for care coordinators and other staff to truly work together to provide the best and smoothest care for all the patients. Personally, this was achieved during the internship by remembering the patients and calling on them by their names. It was a little easier due to the nature of radiation treatment being conducted everyday for a set number of weeks, therefore the patients were being seen daily. Remembering their stories and building a relationship with them became a vital part of their care and made their time here memorable and intimate.

Outcomes/Results: The intention for the internship at MSK was to contribute to the larger picture of cancer care. This was done by remaining in constant communication with our teams and also keeping patients informed. The goal was to keep the system running like a well-oiled machine starting with greeting patients with a warm welcome, checking them in for their appointments, making them aware of any other appointments, guiding them in the direction they need to go to, and keeping other members of their care team informed of any mishaps along the way (like missing orders for labs or lateness). By utilizing this quick, yet efficient system, the clinics and overall cancer center ran with ease during our time.

Evaluation/Conclusion: All in all, MSK is an institution that truly believes in the success and positive experience of their patients. The main goal of the internship was to embody the attributes of MSK and work towards providing the most welcoming environment for the patients so they can just worry about their health and nothing else. To gauge our success, the preceptor made sure there were no complaints and that patients were being directed correctly. At the midpoint check in with the preceptor, he shared that there were no complaints and that there was indeed a great job being done. The final check in will include an overview of the quality of time spent at MSK and the efficacy of ACT principles.

https://docs.google.com/document/d/1q31C2OQnR__WaUdBn9kzopaWhiBVbE8sscRU7BpdfWI/edit?usp=sharing
Title: Implementing Effective Patient Care Coordination

Name: Shrivali Banerjee

Preceptors: Heather Lisbon Magrath, Andrea Bravo

Agency: Memorial Sloan Kettering Cancer Center: Breast and Imaging Center

Purpose: To understand how the effects of social determinants of health on patient care coordination for cancer patients in the survivorship program, and how to implement effective practices to alleviate the issues caused by them.

Significance: In the United States, Cancer is the second leading cause of death amongst adults. Therefore, having accessible, equitable health care that provides quality treatment for cancer patients is essential. Memorial Sloan Kettering Cancer Center strives to provide the best care possible through helping patients with each aspect of their care coordination. This occurs through identifying key social determinants that potentially prevent patients from receiving care. This can include transportation, insurance, location and language barriers. MSK works to accommodate its patients in every way by scheduling treatments closer to patients in New Jersey locations or upstate New York, conducting telehealth appointments to protect both the clinicians and the patients from potential Covid-19 contraction. This project will look closer at the social determinants affecting patient care coordination and discuss several solutions that can make patient care more efficient.

Method/Approach: The method utilized while assisting patients with care coordination included three main components. First, effective, seamless communication with the patients as well as the clinical and administrative team. Troubleshooting the patients scheduling issues by attempting every solution to accommodate before denying their special requests. This includes accommodating location requests, lab works and scans at outside hospitals, transportation and insurance issues. Lastly, implementing consistency and professionalism with patients by following up with them in a timely manner. The success was measured by the number of patients listed on the sign out sheet sent to the survivorship team at the end of each week. The sign out sheet consisted of patients who need further assistance or have issues that need to be followed up on.

Outcomes/Results: For requests that were time sensitive such as obtaining lab work, radiology scans and receiving patient authorization forms, the quicker the requests were communicated to the clinical team, the smoother the clinic went for both patients and providers. Patients who had issues with location and could not come into the NYC locations were accommodated by facilitating appointments at MSK locations in New Jersey and Upstate New York, or putting in orders to obtain lab work from outside hospitals near patients. For patients who did not speak English, the team provided on site and phone language interpreters to assist. Finally, in order to combat the transmission of Covid-19 patients were set up with telehealth virtual appointments.

Evaluation/Conclusion: Communication and troubleshooting resulted in higher patient satisfaction rates. However, patients who were not able to receive accommodation or assistance despite the resources and effort provided by both clinical and administrative team demonstrates the U.S health system not being equipped to respond to social determinants of health, making healthcare difficult to utilize.
Internship Abstract

**Title:** The Analysis of Communication Between Patients and Hospital Management

**Name:** Hardee Bhavsar

**Preceptors:** Allison Manley and Shannon Ofirori, Hospital Operations

**Agency:** Memorial Sloan Kettering Cancer Center, New York NY

**Purpose:** To analyze the importance of communication between patients and hospital management to ensure optimal patient care and decrease anxiety for those undergoing cancer treatment.

**Significance:** Cancer is one of the most common yet deadliest diseases. However, a diagnosis of cancer can branch out to various different problems such as increased levels of anxiety. Memorial Sloan Kettering Cancer Center is the largest cancer center in the world specializing in cancer treatment, allied diseases and research. At MSK, communication dominates the work environment in order to create a warm and stress free environment for patients. Communication is foundational to all layers of the healthcare system due to the domino effect it may have on patients. It is crucial to prevent any medical errors that could potentially occur from lack of communication as it can cause decreased patient care, patient distrust and discomfort as well as mismanagement of healthcare files. It is pivotal to have optimal communication while working as a Spring Support Intern in order to ensure excellent patient care.

**Method/Approach:** At Memorial Sloan Kettering, ACT principles are valued. ACT, also known as the All Care Together principles, consist of six propositions that has allowed and continues to allow for MSK to strive for the best possible patient care. When prioritizing anxiety reduction, it is especially important to follow the ACT principle: minimizing uncertainty. This was demonstrated as an intern by having conversations with the patient. It is crucial to execute warm conversations using various methods. The first method that was implemented was addressing the patient by their name and introducing yourself. By doing so, it allowed patients to feel more welcome to MSK and the conversation. While conversing with the patient and their concerns it was crucial to take note of all their worries and let them know a message will be sent to the clinical team. On the management side, it is difficult to answer clinical questions, but communicating to the patients and letting them know action is still being taken can decrease levels of anxiousness. Lastly, it is important to constantly check emails between management and the clinical team to prevent any delay in treatment and patient care. By actively communicating with the physicians, any misperceptions can be prevented and quality of patient care increases.

**Outcomes/Results:** Practicing proper communication and active listening skills optimized patient care as patients came into their appointments with decreased anxiety. Participating in active communication with the clinical team allowed for all questions asked by the patient to be answered with ease allowing for reduced stress. Improving communication on the management side immediately showed improvement on the clinical side as both patient and providers were well informed with all information, preventing any possible miscommunication from occurring.

**Evaluation/Conclusion:** Active communication is one of the most important skills needed in any field of work. Communication in the healthcare field is especially important as it allows for better patient care. This was seen at Memorial Sloan Kettering as many patients that came in with anxious and stressed mindsets, felt better immediately when exemplary communication was behind their care. Patients that were communicated with and had all their questions acknowledged displayed decreased anxiety levels.
Title: Care Coordinator
Name: Emelin Cazares
Preceptors: Sophie Blitz (Assistant Manager), Marissa Bernstein (Floor Leader)
Agency: Memorial Sloan Kettering Cancer Center

Purpose: To oversee the coordination of a patient's appointment so it meets their needs, it runs smoothly, and efficiently. Assist through warm welcome to make their visit easier.

Significance: Cancer is one of the leading causes of death in the United States. Each year about 602,350 people die from cancer which is almost just as high as heart disease. People who suffer from this disease are overcome with many varying hardships both emotionally and financially. Not only does such disease affect the patient but it also affects the loved ones around them or any possible caretakers. Memorial Sloan Kettering is one of the oldest research hospitals devoting itself to helping aid those who suffer from cancer. They have specialized hospitals to help their patients believe that they will get better with some of the leading doctors too. For example, at my location we have a doctor who invented a chemotherapy pump that has a more effective way of giving chemo. Being able to see and absorb all the innovative things this hospital is creating is a very proud moment because along the way I am also part of a patient's journey.

Method/Approach: Memorial Sloan Kettering has Warm Welcome located on every floor to welcome patients at the beginning of their visit. Each floor has a unique system to help assist their patients and it makes it the least stressful. At the front and center of each floor there is a circular front desk where patients check in, the Warm Welcome staff are the first people patients see. Various tasks are completed by Warm Welcome care coordinators. When patients walk in a care coordinator welcomes them and checks them in while also verifying with them their other appointments throughout the same day. Majority of the time patients have more than one appointment on different floors and will need clarifications or reminders. This system of Warm Welcome allows patients to have a less stressful visit which can lead to a more positive outlook even though they might be facing through their journey.

Outcomes/Results: Talking to patients through this method was a big learning curve. Within the last two months, some patients become familiar and just being able to show that they are remembered makes them happy. As if, someone else is on their journey rooting for them. Sometimes communication is hard due to lack of speaking the same language but translators are available at all times to assist. Not always has this had a good outcome but for the most part patients feel happy knowing there is someone always ready to assist them. Some patients even bring in gifts or treats to show that they also appreciate the assistance of Warm Welcome.

Evaluation/Conclusion: Seeing and observing how appreciative patients are at the end of the visit, they seem to be happy having the help of Warm Welcome. This is especially seen when patients have many visits back to back. Out of state patients also seem to have a hard time especially with navigating the city, being able to even direct them to the nearest cafe shows major appreciation. Verbal appraisal is the most popular amongst patients especially with Warm Welcome.
Title: Significance of Nurse Practitioners

Name: Sofia Centeno

Preceptors: Jasmin Youssef; Assistant Manager, Hospital Operations- Surgery

Agency: Memorial Sloan Kettering Cancer Center - New York, NY

Purpose: To foster awareness and education among cancer patients on the roles of Nurse Practitioners and the value that these professionals bring to the healthcare field.

Significance: Nurse Practitioners perform many of the same job functions as doctors including ordering and interpreting tests, prescribing medications, and focusing on disease prevention. At Memorial Sloan Kettering, specifically in the GYN/Surg department, patients see NPs to follow up on their treatment and post-operation five years later. The program is called ‘Survivorship’ and is considered to be an annual gynecological exam. Some of the patients, however, are not aware of the NP’s full job description and often question why they are not seeing a doctor instead. There is a high demand for NPs across the country due to lowering healthcare costs, helping address the physician shortage, serving as essential advocates for healthcare policy, and bringing a comprehensive perspective and personal touch to patient care. According to the U.S. Bureau of Labor Statistics data, the demand for NP job openings has increased by 52% between 2019 and 2029 (April 2021).

Method/Approach: Patients and the NPs were asked a list of questions about concerns on both parties' ends. The questions include, “How familiar are you with the shared responsibilities between an MD and an NP;” “How does Survivorship differentiate from a typical gynecological visit;” “Were you informed before your Survivorship appointment that you would be seeing a nurse practitioner?;” “You have transitioned from a cancer diagnosis to a survivorship program, how have you handled the transition emotionally?” etc. There is a lot of hesitation and fear when it comes to transitioning from one provider to another. However, the cross between NPs and MDs can be bridged by education and communication. Therefore, about 20 patients and 2 NPs were surveyed to understand the varying points of view.

Outcomes/Results: Of the sample size of 20, 14 of the patients (70%) attested they were not familiar with the shared responsibilities between a doctor and a nurse practitioner. The main reason for hesitation towards seeing an NP was due to a lack of communication, more specifically because patients felt that they were not fully informed about the NP’s role in post-operation care. In addition, 75% of patients agreed Survivorship allows them to feel more comfortable when compared to a typical gynecological visit. In regards to the NPs surveyed, both of them agreed that most patients prefer consistency throughout their care. The switch up between NPs is a concern for patients as they can no longer maintain that personal connection.

Evaluation/Conclusion: By calling 20 patients enrolled in Survivorship, it is evident cancer patients develop a closer connection to their providers than other patients. Coming for treatment, scans, lab work, etc. takes an enormous amount of time and energy. There are patients who come for years and years and therefore maintaining a close relationship with their caregivers is important. It should be noted from the survey that patients would be more open to seeing an NP if their doctors eased this transition by being transparent about their near future at MSK. By giving the full picture of Survivorship, there are fewer surprises and more a reason to make these preventative care appointments.
Title: Coordinate for Rehabilitation Services in the Department of Neurology

Name: Rose Y. Chung

Preceptors:
- Strawbry M. Jiles, Office Coordinator II for the Department of Neurology-Rehabilitation (Mentor)
- Anita Moonsammy, Team Lead, Hospital Operations for the Department of Neurology-Rehabilitation (Supervisor)

Agency: Memorial Sloan Kettering Cancer Center (MSKCC) - New York, NY

**Purpose:** To direct cancer patients that need rehabilitation services in the department of neurology to proper resources as well as complete requests to fulfill all patient needs daily.

**Significance:** The Department of Neurology at Memorial Sloan Kettering Cancer Center provides treatment and care for patients with all types of primary brain tumors, spinal cord tumors, metastatic tumors involving the nervous system, and paraneoplastic neurological disorders. Moreover, the Department of Neurology offers diagnostic and therapeutic services to neurology patients who develop neurological disorders unrelated to cancer. The Rehabilitation Medicine Services in the Department of Neurology is responsible for determining whether a patient is in need for further therapeutic services such as physical therapy or occupational therapy. The goal is to help neurology patients improve the level of function and quality of life as much as possible. Coordinating and being the bridge for patients in the Rehabilitation Medicine Services is crucial to making sure that they are provided with the best and correct care.

**Method/Approach:** A series of methods are used to ensure that patients receive the best treatment, have the best health outcome(s), and experience the best patient journey at MSKCC. The neurology department strives to develop the best treatment plan for patients through “seamless communication and collaboration among many experts on the team.” (Memorial Sloan Kettering Cancer Center). To fulfill these goals, the All Care Together (ACT) Principles are used as a guideline and framework. The six key ACT principles include: Coordinate the Journey, Foster Warmth, Keep it Simple, Meet Individual Needs, Minimize Uncertainty, and Restore Control. The goal of each ACT principle is to have patients feel secure in their patient journey and that proper action is taken to provide the support that they need.

**Outcomes/Results:** The utilization of the ACT Principles led to better communication with patients and created more satisfactory patient outcomes within the rehabilitation services in the Department of Neurology. All calls and interactions with patients were directed to the correct individual or resource(s) that best assisted a patients’ need(s).

**Evaluation/Conclusion:** When it comes to patient care, the key is to have good communication and to build trust with patients. It is crucial to meet and assist all patient needs and provide them with the best solution or help. Providing clear directions and resources creates great coordination between the patient and their health care. It is essential that methods of good communication are continued and enhanced.

https://docs.google.com/document/d/1zs1cyRQuXup_y3W7qq-nfeY2IVgzlCPleTxYjoFfqM8/edit?usp=sharing
Title: The Impact of Social Support on the Mental Health and Wellness of Cancer Patients

Name: Kyra Louise D. De Asis

Preceptors: Direct Supervisor: Ana Costa

Agency: Memorial Sloan Kettering Cancer Center - Basking Ridge

Purpose: Investigate the Efficacy of Social Support Among Cancer Patients Demographics With The Highest Risk of Suicide

Significance: Zaorsky and Zhang, et al. (2019) conducted a study that found that 13,311 cancer patients in the United States committed suicide from a total of 8,651,569 diagnoses. The study found that the rate of suicide among cancer patients is four times that of the general population. Throughout the course of their treatments, cancer patients can experience multiple psychologically stressful events. The initial diagnosis of cancer, testing, and prolonged treatments can negatively affect the mental state of patients. As the survival rate of cancer increases, it is important now more than ever to detect and treat the risks of suicide among cancer patients.

Method/Approach: The factors that determine the risk of suicide among cancer patients are (1) mental health, (2) socio-demographic, and (3) illness factors. Among the population of cancer patients observed within the study, the researchers found that those who committed suicide were predominantly male (83%) and white (92%). Additionally, the study found that lung, head, neck, testes, bladder, and Hodgkin Lymphoma cancer patients were at higher risks of suicide compared to other types of cancers. Hupcey (1998) defines Social Support as providing a resource, the patient feeling cared for or a sense of well being, performing an act with an intended positive outcome, a positive relationship between the patient and the provider, support given externally from an organization and support that does not have any negative intent. An investigation of cancer patients (N=168) completing a self-assessment of their mental and physical well-being, and quality of life will determine the risk of suicide in association with their perceived social support.

Outcomes/Results: From the research of Zainal and Booth, et.al. (2012), they found that within the pool of cancer patients participating in the study, the measure of depression had an effect of 0.575 - which shows a moderate effect size, and the measure of anxiety among cancer patients was 0.733 - which shows a large significant effect. Subjects who experienced lower perceived social support had significantly higher levels of depression, lower scores on quality of life, and higher scores on physical symptom scales compared to those with higher perceived social support. A study by Usta (2012) expressed that 38.1% of cancer patients with low social support scores were diagnosed with depression.

Evaluation/Conclusion: Among the population of cancer patients studied, there were lower risks of suicide among those with higher levels of optimism and perceived social support. Risk-reducing steps such as providing adequate emotional-intelligence training for health professionals, social support events, interventions, and identifying the signs of suicide can help cancer patients maintain a better quality of life. Further research is needed to determine the best method of identification and prevention of suicide among high suicide risk cancer patients.
Title: Office Coordinator Intern

Name: Okia Dixon

Preceptors: Jashane Morrison, Assistant Manager, Breast & Imaging Center
Lennika King, Office Coordinator, Breast & Imaging Center

Agency: Memorial Sloan Kettering Cancer Center-Breast and Imaging

Purpose: The purpose of the internship is to introduce the intern to the everyday tasks of an Office Coordinator at MSKCC BAIC. In addition, it is to also instill the importance of the role and how it directly affects the relationship between patient services and organization reputation. Weekly meetings are put in place to check on progress and understanding of assigned tasks, while also used to determine advancement and completion.

Significance: Many people are diagnosed with breast cancer daily. In order for them to get the appropriate treatment, they need to be scheduled for every appointment regarding things such as, lab work, chemotherapy, scalp cooling, consultations, radiation, treatment, etc. In order for this to happen, the administrative end of the organization needs to be working efficiently and effectively. The patients and doctors are in constant communication with the Office Coordinators to make sure all scheduling is handled properly.

Method/Approach: To analyze the outcome of the patient experience if the role of the Office Coordinator is not being fulfilled successfully. If the Office Coordinators are not actively and effectively meeting the needs of the patients, then the clinic/organizations might fall behind against their competitors. For example, if an OC fails to schedule a patient for a required 5 week follow up with the oncologist, the patient may have to take the appointment time of someone else, or wait weeks for a new appointment. When working with cancer patients, every minute and appointment counts. This may cause interruption in their treatment, medication, or even everyday wellbeing. Furthermore, this would lead to the decline in patient satisfaction and the downfall of the organization.

Outcomes/Results: After analyzing the efficiency of the Office Coordinators, it shows just how important it is to cater to patient needs. The satisfaction of patients is what aids the organization to be the lead against its other competitors. MSKCC is famously known for their patient care services. When the Office Coordinators are working more efficiently it shows in the results of our weekly meetings. There is less rescheduling/canceling of appointments on the administrative end. Since the patients are being scheduled accurately, whether that is by doctors’ suggestion or regular follow up, it is less likely that things would need to be changed or moved around.

Evaluation/Conclusion: Patient engagement is very important to the reputation and the efficiency of MSKCC BAIC. It is proven that the appropriate completion of the Office Coordinator’s job, directly correlates with patient satisfaction. Millions of people from all over the world come to MSKCC in order to receive treatment. To keep up with being the lead cancer research center, it is imperative that all structures of the organization are on top of the duties. Most importantly, the Office Coordinators. They are the direct bridge between the patients and the doctors. Without them succeeding in their responsibilities, that bridge between the two will crumble.
Title: Improving The Patient Experience in Brain Cancer Patients

Name: Dominique Garcia

Preceptors: Direct Supervisor: Channing Wadley, Office Coordinator

Agency: Memorial Sloan Kettering Cancer Center - Neurology Department

Purpose: To analyze the impact of improving the patient experience through communication in patients affected by brain cancer.

Significance: This year, an estimated 25,050 adults (14,170 men and 10,880 women) in the United States will be diagnosed with cancerous tumors of the brain and spinal cord. Individuals with brain cancer face an intense set of challenges as the disease can threaten the patient’s entire identity. Many patients have lesions in their brains that imply profound hardships on memory, judgment, speech, and mobility. Symptoms of brain cancer can exhaust a patient and their loved ones, as the disease affects parts of the brain that control behavior and impulsivity, suggesting a need to improve the patient experience for this unique group. While creating an environment that fosters trust and warmth is essential in all aspects of care, it is particularly important for patients with brain cancer - which begins and ends with effective communication.

Method/Approach: The main approach taken in improving the patient experience in brain cancer patients was to apply key communication skills when communicating with patients. Active listening and practicing empathy are critical components to ensuring a personalized experience in patient care. Using a patient's name multiple times during a call and always beginning a conversation by asking a patient about their day works effectively in curating a warm environment. Medical errors comprise hundreds of thousands of preventable deaths each year, which could be minimized by using key communication tools. When communicating with patients about prescriptions or symptoms, reflection is a valuable communication skill in giving patients confidence and relief. Reflection is the communication process of paraphrasing and restating the feelings and words of the speaker. This allows the speaker (patient) to “hear” their own thoughts, and validates that the listener was truly listening.

Outcomes/Results: When practicing these communication methods, the patient experience is improved for brain cancer patients. Medical errors are reduced when prescription dosages are restated through reflection, patients feel an environment of warmth, and most importantly patients are reminded of their appointments that are essential to recovery. For patients with severe neurological and memory issues, effective communication is key to prevent dangerous delays in time sensitive care.

Evaluation/Conclusion: Communication is one of the most important factors in ensuring high quality care. By using effective communication strategies, patients feel more valued, medical errors are minimized, and patients with neurological and memory issues are reminded of appointments crucial to their care plan. It is conclusive that applying key communication strategies greatly improves the patient experience in brain cancer patients.

https://docs.google.com/document/d/1WJKaOTW-w6Fhtf-2LfqzRENSnTKc18sk94ibzzcU7g8/edit
Title: Patient Care Impact on Chemotherapy Patients

Name: Julia Goodwin

Preceptors:
Direct Supervisor: Bridget Kelly, Assistant Manager, Outpatient Operations
Project Supervisor: Stephanie Gaillot, Team Lead, Outpatient Operations

Agency: Memorial Sloan Kettering Cancer Center - Breast and Imaging Center

Purpose: To analyze the impact of improving patient care for breast cancer patients who are undergoing chemotherapy treatment.

Significance: Just within the United States more 3.8 million women are diagnosed with breast cancer. This includes women currently being treated for breast cancer and those who have finished treatment. Patient care is crucial in the impact of a patient’s outcome to survive their diagnosis. The improvement of patient care for those undergoing chemotherapy treatment is crucial to see an increase in survival rates after the commencement of treatment. The level of involvement in patient care can improve treatment outcomes and efficacy for the patient. The standards of care contribute to the quality of life for the patient. Chemotherapy treatment causes negative side effects that can be both psychological and physically crippling. The improvement of patient care delivered by health care professionals is a key component in positively impacting breast cancer patients quality of life.

Method/Approach: Oncological research was administered to focus on diagnosis, treatment process, and the quality of care in breast cancer patients. More than half of patients diagnosed with breast cancer move forward with chemotherapy treatment to combat the disease. The development of therapy regimens are proven to make a significant difference in survival rates of the patients. A sample of 400 breast cancer patients participated in a study to compare single chemotherapy treatment to a combination of treatment and targeted biologic therapies. The sample of patients (n=208) received the combination of therapies and yielded significantly better results than the rest of the group.

Outcomes/Results: Various trials of different combinations of treatments yielded results that contribute to the bigger picture of improving the quality of life in breast cancer patients. A trial that combined a regimen of docetaxel and trastuzumab had an overall response rate of 61%. This means that the survival time drastically increased (by 8.5 months) for the patients that participated in this specific trial. The combination enhances the patients experience overall and substantial survival longevity.

Evaluation/Conclusion: The improvement of patient care needs to be emphasized in order to improve the quality of life in breast cancer patients. Interventions are needed in addition to active involvement by clinical and administrative staff throughout the patient's care. Specifically psychological interventions are necessary to positively impact health outcomes of the patient. However every study has its limitations, every patient’s diagnosis is specific to them therefore they will react to treatments and care differently than others.

Works Cited
Internship Abstract

Title: Patient Care Coordinator, Radiology Department

Name: Alan Jin

Preceptors: Direct Supervisor: Julia Attinello, Manager of Outpatient Operations

Agency: David H. Koch Memorial Sloan Kettering Cancer Center

Purpose: To help ensure patients regain a sense of control in their lives while battling cancer. Create a smooth experience for patients arriving and departing from radiology scans.

Significance: Every year, MSK admits over 23,000 cancer patients into their treatment program. Of these 23,000 patients, the vast majority start their battle with cancer in the radiology department where scans are done to detect the existence of cancer. The procedure of receiving a scan can be a daunting and anxiety ridden task due to the uncertainty of results to come. Given this, there is a feeling of losing control in one’s life as the battle of unpredictability sets in. As a Care Coordinator and the first means of interaction for patients, it is crucial that each patient is treated with a welcoming demeanor and everything possible is done to help them regain a sense of control.

Method/Approach: The responsibilities of the Care Coordinator position include and are not limited to ensuring patients have proper documentation and questionnaires completed prior to appointments, provide information regarding current and future appointments, and serve as a liaison between the clinical staff and the patients and their families. In addition to administrative responsibilities, there also exists the underlying duty to ensure patients feel welcomed and comfortable with their time at MSK. In the endeavor to create said feeling for patients there is a requirement for people skills such as active listening and a desire to assist the patient regardless of circumstance. Being aware and constantly implementing these skills has shown positive results in the experience of patients who are feeling potentially frustrated or anxious.

Outcomes/Results: In the healthcare setting, there can be an array of issues that may cause delays in patient appointments. This is often the main source of frustration for patients as they wait eagerly in the waiting room, sometimes for multiple hours. It was observed that patients will inevitably ask for updates and occasionally have heightened emotions. By always responding and assisting in a calm demeanor and making an extra effort to assist, frustrated patients often begin to immediately feel more at ease knowing someone is there to take care and truly listen to concerns. There are many times when patients finish their scans with a happy expression on their face and go out of their way to show thanks for assisting them throughout the appointment.

Evaluation/Conclusion: As a Care Coordinator there are set administrative duties to adhere to, but through the desire to show empathy and compassion despite the circumstances, real differences can be made in the days of cancer patients who seem to have little control over an illness that is consuming their lives. The accumulation of little moments of connection goes a long way in creating a long lasting impact.
Title: The Importance of Effective Communication & ACT Principles in Care Coordination

Name: Ilene Anna Joy, Care Coordinator Intern

Preceptors: Direct Supervisor: Melina DaSilva, Assistant Manager

Agency: Memorial Sloan Kettering Cancer Center, Pediatric Outpatient Operations

Purpose: To facilitate a smooth transition of care for pediatric patients and their families and creating an atmosphere of warmth and support by utilizing strong communication and interpersonal skills.

Significance: According to the New York State Department of Health, about 1,000 children under the age of 20 are diagnosed with cancer every year. Childhood cancers affect not only the children but the whole community becomes affected emotionally, physically, and spiritually. It is imperative to have strong interpersonal and communication skills while interacting with patients and caregivers who come to Memorial Sloan Kettering to receive treatment and meet with doctors. My goal is to understand the importance of effective communication and embody MSK’s ACT principles and see the difference that it makes in the patient care experience.

Method/Approach: MSK Kids sees around 150 patients and families per day at the Pediatric Ambulatory Care Center (PACC). With every patient interaction, the care coordinators utilize the ACT Principles which are to coordinate the journey, foster warmth, keep it simple, meet individual needs, minimize uncertainty, and restore control. By utilizing these principles, it is projected that there will be an increase in positive patient outcomes. Over the course of three months, patients will be more receptive to care and administrative teams and will leave the PACC satisfied with the level of care they experience at Memorial Sloan Kettering Cancer Center.

Outcomes/Results: It is evident that through utilization of the 6 ACT principles, there is a significant increase in positive patient interactions. On average, 5/6 of the patients and caregivers who have appointments or call with questions or concerns are happy with the level of care and empathic communication methods of the MSK Kids care team. The majority of patients who were unsatisfied with their care noted that their concerns involve miscommunications over scheduling or transportation. These concerns can be solved through proper communication between members of the team and patients and caregivers by confirmation calls for appointments and scheduling. In person patient communication experiences thrive off of a culmination of all the ACT Principles. Patients noted an elevated mood when they feel their concerns are being heard and they are being helped in a timely, caring fashion.

Evaluation/Conclusion: In order to promote a healing environment at MSK Kids, it is beneficial for staff to utilize the ACT Principles during patient interactions. Miscommunication and patient frustrations can be limited through open, honest and time-centered communication. When team members are patient and active listeners, patients respond better and are able to take more away from their care experience. Childhood cancer is a life altering experience for those affected, and effective communication can alleviate some of the stressors that patients and caregivers experience.
Internship Abstract

Title: Active Listening and Communication Increase Efficiency and Quality Care

Name: Alexis Kim

Preceptors: Managers of the Endocrine Department, Alexis Killeen and Josephine Boa-Amponsem

Agency: Memorial Sloan Kettering

Purpose: To determine how useful active listening and communication is when encountering patients with medical needs in Memorial Sloan Kettering.

Significance: Medical errors in the healthcare system is very prevalent due to miscommunication or lack thereof. Lack of communication can cause severe delays in patient healthcare and lead to poor quality patient care. These issues, for example, can cause loss of medical information, delays in appointments, poor timing, and heightened errors involving patients’ medical care. Improving communication as an Office Coordinator can aid in more efficient relationships with patients and providers while also minimizing missed appointments and delayed care.

Method/Approach: The main approach that was taken was to practice active listening and better communication skills when directly speaking to patients during scheduling and confirmation calls. During this time communication involving symptoms, concerns, and necessities with prescriptions were also discussed extensively to ensure that patients were receiving exactly what they needed. For two months, immediate problem resolution was practiced. Approximately 50 patients were spoken to a week with a variety of onset problems regarding scheduling and labs. When patients discussed any concerns, preferences, and conflicting schedules with the pre-set schedule that was made for them, all information was written down immediately to decrease any chance for lost information. If a solution was not met, a superior such as the mentor was called upon so that she could directly speak with the Doctor to ensure that a patient did not miss or receive late care. In addition, referring to patients by their names was also practiced so that it created a more friendly and direct environment between the patient, provider, and any staff members. This allowed patients to be more attentive with the information being transmitted.

Outcomes/Results: When practicing these tactics, approximately 35 out of the 50 patients a week were more inclined to listen, understand, and ask more questions regarding their care. They seemed to be more calm when issues arose and were open to solution alternatives. They were also less likely to miss their appointments and were more attentive about instructions that involved their treatment. Therefore, patients were able to gain more consistent care with less errors involving scheduling, lab orders, and medical information. In doing so, doctors were also able to attain all the information needed for all appointments so that patients could receive the more timely care.

Evaluation/Conclusion: Quality care is defined by a number of different factors such as timeliness, efficiency, efficacy, and patient-centeredness. However, better communication is one of the easiest ways to improve a wide range of those factors such as timeliness and efficiency. It has the potential to substantially improve a patient’s experience while also giving them a better opportunity to gain better health. When people are proactive when they speak to their patients, it allows patients to feel more valued which can in turn also better their experience and quality of care.
Internship Abstract

Title: Office Coordinator Intern

Name: Courtney Le

Preceptors: Jihan Mckenzie - Assistant Manager
Rebecca Messano - Team Lead

Agency: Memorial Sloan Kettering Cancer Center - Breast Imaging Center

Purpose: To serve as a liaison between doctors, nurses, and patients in Memorial Sloan Kettering - Breast Imaging Center at the surgery department. As office coordinators, they are responsible for communicating with doctors, nurses, and patients to ensure the best quality of care.

Significance: Breast Cancer is the second most common cancer among women in the US (CDC 2018). The general age range of patients with breast cancer ranges from 55 to 85+. According to the CDC, the most common racial demographics affected by breast cancer are white and black women while black women die at a higher rate than their white counterparts. With the diversity of the staff and their shared experiences they ensure that there are no racial biases when delivering care towards patients while combating the healthcare disparities that women of color face.

Method/Approach: Relationship-Based Care (RBC) is an operational blueprint for improving safety, quality, the patient experience, employee engagement, and financial performance. It also advances the culture of healthcare organizations by focusing on three key relationships, which are relationship with self, with colleagues, and with patients/families (CHCM). With that in mind, office coordinators communicate with patients by calling them and first confirming their date of birth (DOB) to make sure that they have received imaging and pathologies before their appointments while also keeping in contact with nurses and physicians to make sure that they get an approval to place a radiology or pathology order prior to submission.

Outcomes/Results: While observing the communication system between office coordinators, care coordinators, nurses, doctors, and patients, it is revealed that the best form of communication between patients, nurses, and doctors is using MyMSK. MyMSK is a patient portal app that allows patients to manage appointments, upload medical records, view test results, message their provider and many more functions with just their mobile devices. Meanwhile, between office coordinators, nurses, and healthcare providers, emailing and Microsoft teams is the most effective form of communication regarding questions and concerns that patients have while also ensuring that radiology and pathology materials were submitted before patients have their appointments.

Evaluation/Conclusion: To ensure that patient care has improved, managers hold meetings either weekly or biweekly to provide feedback to their coordinators. Additionally, managers and coordinators gather together in discussion groups to address new or modified changes in effort to improve patient experience. The big indicator on the quality of patient experience is to provide a survey to patients after every appointment through their MyMSK where they rate the quality of their care at MSK.

https://www.cdc.gov/cancer/breast/basic_info/what-is-breast-cancer.htm
Title: Effects of Cancer Rehabilitation

Name: Emily Montes

Preceptors: Marcia Scott, Assistant Manager of Outpatient Operations

Agency: Memorial Sloan Kettering Cancer Center – Monmouth, NJ

Purpose: To examine the role of cancer rehabilitation and its impact on physical, psychological, and cognitive problems caused by cancer and its treatment.

Significance: With nearly 17 million cancer survivors recorded in the US in 2019, many have undergone surgery, chemotherapy, radiation, and other forms of treatment that have affected their physical, cognitive, and psychological abilities. Silver et. al (2018) discusses that from many of the cancer survivors who would benefit from rehabilitation interventions, only a limited number of them actually receive this care because of a lack of awareness and access (para. 10). At Memorial Sloan Kettering Cancer Center, physical and occupational therapy services are offered for patients throughout their treatment, recuperation, and life after cancer. Because of the positive effects that rehabilitation therapy has on cancer patients, it is pertinent that these services should be made more accessible and acknowledged among patients, their families, and physicians. This project will use results from research studies to raise awareness about the growing need for rehabilitation services among cancer patients going through treatment, recuperating from treatment, or readjusting to life after treatment.

Method/Approach: A series of systematic reviews and studies were conducted to assess the effectiveness of rehabilitation on cancer patients post-treatment. Information was gathered through online research databases; through analysis performed by medical professionals and researchers, the effectiveness of rehabilitation on cancer patients has been evaluated. These studies examined a number of patients suffering negatively from their cancer treatment and how they received rehabilitation interventions. Comparisons were made between those that did not receive therapy versus those who did which led to the conclusion of positive effects from cancer rehabilitation.

Outcomes/Results: Based on research findings, it was found that rehabilitation led to a high percentage of cancer patients with an improved quality of life after rehabilitation. According to the study done by Riedl et al. (2017), “The percentage of patients…for anxiety dropped from 33.2% to 15.5%, and from 30.7% to 10.4% for depression”. Further, it was found that patient scores of health-related quality of life (HRQOL) significantly improved, with the most notable changes in emotional/social functioning, fatigue, and pain (Riedl et al., 2017). These findings can help encourage medical professionals/facilities to have rehab services more accessible, as well as suggesting these options to more survivors.

Evaluation/Conclusion: By regularly evaluating and surveying patients on their satisfaction and success with quality of life after rehabilitation, providers will be able to administer rehabilitation for more patients who qualify for this care. Success would show a continuous decrease in poor quality of life, and an increase in physical and mental well-being. Studies can be revisited 5 years after the start of rehab to analyze how trends may change.

Abstract Citations: https://docs.google.com/document/d/1xWnwIfRBJm-kz9AOHVk_xk4qvNCNIDiA/edit
Internship Abstract

Title: Building Relationships with Cancer Patients

Name: Francesca Nicholson

Preceptors: Mentor: Tessa Murphy
Direct Supervisor: Marcus Garone

Agency: Memorial Sloan Kettering Cancer Center

Purpose: To build meaningful relationships with cancer patients at Memorial Sloan Kettering Cancer Center.

Significance: Each year more than 1.6 million are diagnosed with cancer making it the second leading cause of death. My position at Memorial Sloan Kettering is to make patients feel welcome in our environment even though their life is not always guaranteed at the end of our treatment even though it is our goal to make sure they overcome their cancer. It is so significant to make sure that each worker at Memorial Sloan Kettering is building meaningful relationships with these patients and making them feel a sense of safety when they walk into our building. We are the world's largest privately owned cancer treatment center. We pride ourselves in the world renowned doctors that work at our facilities. The relationships that we build last a lifetime and we continue to hear success stories from our patients. People from all over the world come to Memorial Sloan-Kettering because of how amazing our care is. I am beyond proud to be a Memorial Sloan-Kettering intern.

Method/Approach: One of the ways to provide cancer patients with a positive experience at Memorial Sloan Kettering is greeting them with a warm welcome. A warm welcome is one of the main jobs of the internship. This warm welcome can completely change the experience that the patient has in the clinic that day. Many of these patients are coming into the facilities with many nerves. It is so important to use the warm welcome approach in order to build a better relationship with your patients. Once the patients remember how their experience was, they will feel better about coming back to the clinic.

Outcomes/Results: Out of all of the cancer patients, most of them greet you back. However, there is a select few who you can tell do not want to communicate with you whatsoever and that is completely okay. Every person is going through their own way of grieving this disease. Cancer has no cure and these patients know that. They are coming to Memorial Sloan Kettering because they want the best care possible.

Evaluation/Conclusion: In conclusion, building meaningful relationships with cancer patients is so important at Memorial Sloan Kettering Cancer Center. It has been a top priority to make sure that everyone feels as if they have a friend even if that's only for 30 seconds. The entirety of the warm welcome is made with the intention of making the patients feel safe in the environment they are entering. Many of these patients come with fears that are written over their entire face. Some patients enter the clinic solo and others have an immense support system. Everyone's situation is unique. Being able to fulfill a warm welcome and build relationships with the patients is the most important aspect of Memorial Sloan Kettering.
Internship Abstract

Title: Maintaining Communication is Essential for a Positive MSK Patient Satisfaction

Name: Janvi Patel

Preceptors: Jaclyn Musum, Assistant Manager, Outpatient Operations and Ambulatory Care

Agency: Memorial Sloan Kettering Cancer Center, Montvale NJ

Purpose: Work at outpatient facility, aiding patients with check-in and check-out procedures, as well as responsibly maintain constant communication between the patient and the clinical team and ensure that each patient is satisfied with the care they receive at MSK.

Significance: Inadequate communication has long been recognized as a major cause of death in the healthcare industry. According to one study conducted in the late 1990s, poor communication was responsible for causing between 44,000 and 98,000 patient deaths annually in American hospitals alone (Taran, 2011). Effective communication and supportive treatment help avoiding deaths and malpractice errors. Hospitals and doctors’ offices nationwide might have avoided nearly 2,000 patient deaths and about $1.7 billion in malpractice cost (Bailey 2016). The care coordinator’s role during this project will be to act as a liaison between patients and healthcare teams, as well as to maintain the constant contact required to provide a great patient experience.

Method/Approach: Throughout the internship, this study was carried out using simple clinical and patient communication observation. Appointments were organized and arranged according to the needs and convenience of the patients, while also ensuring that they were informed about every element of their therapy. Patients were seen/called to confirm appointments before they were booked to ensure patient convenience. When patients were unable to be reached, voicemails were left and/or appointment letters were mailed to their residences. Patients could see their scheduled appointments and other information about their care on their "MyMSK" patient portal. The need of maintaining constant contact with the clinical team was also confirmed. Patients are also able to call their doctors during the office hours to speak with them on the call. There are also emergency patient visits scheduled on the same day to provide immediate assistance to the patient.

Outcomes/Results: Different methods of communication appear to enhance the patient experience at MSK, based on observations of clinical and patient communication. Active MSK patients will find the "MyMSK" patient portal to be beneficial and handy. Patients who receive appointment letters in the mail are also reminded of their impending visits. Most patients request to be seen and/or called to book appointments at times that are convenient for them. Email contact between clinical teams has been found to be helpful in filling in any gaps and answering any queries patients may have, which the coordinator relays to the clinical team. Patients are also able to view their reports on the MSK portal which allows them to keep the information safe.

Evaluation/Conclusion: Patients will be given satisfaction surveys to judge how effective MSK has been in keeping in touch with them. Coordinators will also attend monthly meetings with managers and discussion groups with coworkers to explore the accomplishments and shortcomings in communication at MSK. This will help to keep a continual flow of communication going, which will improve the patient experience.
Title: Patient Interaction and Management on the Blood Transfusion, Apheresis, and Bone Marrow treatment

Name: Rachael Patel

Preceptors: Mentor: Raidah Chowdary, Patrick McNicholas
Team Lead: Michele Cresci

Agency: Memorial Sloan Kettering Cancer Center

Purpose: To check patients into their appointment on the 12th floor of the Koch Center Building while simultaneously directing and guiding them for their scheduled appointments, addressing new patients, and answering general questions about their treatment plan.

Significance: As the COVID-19 pandemic continues to progress, Memorial Sloan Kettering has been trying to multitask and manage each immuno-compromised patient with new protocols placed by the CDC for the most efficient treatment. Everyday, we get approximately 130-150 patients coming in for blood transfusion, cell infusion, and apheresis treatment based on their treatment progress. On the 12th floor of MSK Koch Center, the providers, PCT’s and charge nurses specialize in “bone marrow transplant, which is a specific type of stem cell transplant where the stem cells are taken from the bone marrow which is used in bone marrow harvesting” (MSK 2022). The peripheral blood stem cells are collected from the bloodstream through the apheresis process to increase the amount of stem cells in your body for preparation for chemotherapy (MSK 2022). Our goal as a floor is to manage and prepare patients for chemotherapy through various blood draws, and lab procedures in the Daytime Treatment Unit (DTU).

Method/Approach: As each patient enters the 12th floor of Koch they are greeted by myself and my co-workers with several questions such as their last name and date of birth to check them in. The team asks each of them whether they have a medical device to draw blood from if they are completing lab work. If they are just in to see the doctor, these questions are not necessary and we ask a COVID questionnaire. Once we complete all necessary questions, they are handed a carepass, a device used to track where each patient is located for the providers. The providers, and nurses come to collect each patient based on their treatment plan, and the CC’s at the front desk are always there to provide any information about future appointments, where to go next, any updates for scheduling, lab information etc.

Outcomes/Results: The organizational patterns between CC’s, PCT’s, and charge nurses are continuously improved with the active communication through our online health database (Cadence, CIS, and Salesforce). In order to manage each patient, the CC’s work cohesively to explain the basic procedures, treatment plans, and lab information if there are any questions. By using Teams or Voalte, all employees communicate about any missing research, labs or samples that must be collected from blood transfusion.

Evaluation/Conclusion: Each week, we have a presentation and meeting with our team lead to teach us about the clinical work we are doing with the patients, as well as how to better manage difficult situations through group discussions. These meetings provide information on how to treat each patient in an ethically graceful manner with adequate service, because that is what Memorial Sloan Kettering is prided upon. My team lead, Michele, and I meet each week to evaluate my current work progress, new steps that I will be learning throughout the program and future plans at MSKCC.
Internship Abstract

Title: Office Coordinator Intern, Department of Medicine

Name: Emmanuel Ramirez

Preceptor: Laura Makuch, Office Coordinator Department of Medicine

Agency: Memorial Sloan Kettering Cancer Center - Medicine

Purpose: To maintain organization, efficiency, and communication between MSK patients and physicians through the usage of health information systems such as Epic and CIS.

Significance: According to Cancer Facts and Figures 2022, an educational companion for a scientific paper in the American Cancer Society Journal, there will be an estimated 1.9 million new cancer cases diagnosed in the United States. This displays the importance of continuing the development of new treatments for the disease. As a hospital that prides itself in being one of the best cancer centers across the globe, Memorial Sloan Kettering Cancer Center continues to invest in top research and care for its patients. Everyone at MSK plays a crucial role in the fight against cancer and that includes the role of the office coordinator, who must provide accurate information to patients and physicians not only to facilitate the treatment process but also to provide the comfort and confidence that every patient and their families need.

Method/Approach: Several approaches are utilized by office coordinators at Memorial Sloan Kettering Cancer Center to provide organization, efficiency, and accurate information to patients and their families. By assigning coordinators to specific physician offices, it allows for a more personalized focus and care for patients. Every week, each physician participates in an MDR meeting with their respective coordinator in order to discuss upcoming appointments and analyze any needs or concerns for each patient. Through the usage of health information systems such as EPIC and CIS, office coordinators also organize clinical days for doctors and make sure every appointment is ready and confirmed. Lastly, any communication that comes from the patient or physician throughout the week must be accurately received and sent to the appropriate person.

Outcomes/Results: On average, a clinical day for a physician at Memorial Sloan Kettering includes interacting with 25+ patients. Each appointment varies between telehealth and in-person. The organization and preparedness from both patients and physicians for each appointment is largely dependent on the preparation throughout the week, which involves office coordinators organizing, communicating, and providing relevant information to physicians and the patients that will be present during clinical days. Making sure patients are able to attend appointments, exams are up to date, and doctors are available for their scheduled meetings are all different aspects in making sure clinical days run smoothly and efficiently. Successful and effective clinical days serve as a great way to analyze the work that office coordinators do each week behind the scenes at MSK.

Evaluation/Conclusion: Surveys done to inpatients in regards to how well staff work together to care for patients show average ratings of 95, which ranks the highest among New York hospitals that offer cancer treatments. The way in which office coordinators from all offices efficiently communicate and coordinate plays a major role in the high ratings that characterize MSK and are a testament to how well the hospital continues to improve their care for patients.
Internship Abstract

Title: Care Coordinator I, Outpatient Operations

Name: Sharfaa Sabir

Preceptors: Ana Costa, Assistant Manager, Outpatient Operations

Agency: Memorial Sloan Kettering Cancer Center, Basking Ridge NJ

Purpose: To give a warm welcome and thoughtful send off to patients while also providing support to their caregivers.

Significance: A family caregiver has been defined as a person that has an emotional bond that is significant to the patient. The illness of a child (or any individual) is a central event for families and affects those that are closest to them. Children that have cancer are required to have consistent care through hospitalizations, treatment, and the side effects that follow treatment. There is a physical and emotional toll that affects the patients as well as the child. As the disease progresses there are social, mental, informational, physical, financial, and psychosocial needs that are unmet in caregivers of children with cancer. The assessment of the needs of families, especially at the initial prognosis of the disease, is an important indicator for healthcare professionals to meet the needs of patients and their caregivers.

Method/Approach: Research was done to determine whether family caregivers have basic needs that are unmet and to determine the level of dissatisfaction. Parents of children with cancer were invited to participate in a study and consent was obtained first. They had to be eighteen years of age or older and a parent of a child with cancer. All information was provided and all questions about the research were answered. The research was conducted in the pediatric oncology and hematology departments of clinics and hospitals. A 4 point Likert scale was utilized for parents to indicate their level of needs. 1 indicated not applicable, 2 indicated low need, 3 indicated moderate need, and 4 indicated high need.

Outcomes/Results: A population survey between 2015 and 2020 was conducted to determine the needs and problems that caregivers of children experience. It was a descriptive study that utilized a nonprobability sampling technique. There were 800 participants in the study that were family caregivers of children with cancer. Informed consent was given and the method used was a questionnaire. 55% of participants had a moderate to high need of emotional/psychological support. 30% of parents reported being in need of financial help. 97% of participants experienced some level of need for one or more items while 73% of participants had a moderate to high need for one or more items.

Evaluation/Conclusion: While this study focused on the needs of parents of sick children, there is more that needs to be evaluated based on these findings. If parents of children are experiencing distress emotionally, psychologically, and financially, then this may suggest that caregivers of all cancer patients may be experiencing the same. Cancer is a disease that can be referred to as a family disease as the toll does not only affect the patient but close family members as well. It is the responsibility of the healthcare system to identify the shortcomings, and provide resources. The experience I have had at Memorial Sloan Kettering has shown me that caregivers have needs that should be acknowledged. I have provided a lending ear to patients that need it and their caregivers as well. With this I have found that there is an emotional and physical toll that caregivers experience. Their focus on taking care of these sick loved ones overpowers their care for themself. The needs and wants of the caregiver are pushed aside as the care of the cancer patient is the focus. While it is important for the cancer patient to have a strong support system, it is up to the caregiver to take care of themself so that they stay strong. With chronic diseases, the caregiver is usually giving care for an extended period of time.
Internship Abstract

Name: Katherine Stein

Position: Student Temporary: Care Coordinator I

Preceptor: Marissa Fontanez, Department Manager, MSK 53rd Street

Agency: Memorial Sloan Kettering Cancer Center

Work Duties: As a Care Coordinator, I am responsible for checking patients for scheduled appointments throughout the Gynecology and Women’s Health Department at MSK’s 53rd Street Location. To check patients in, I must utilize Epic’s Cadence EMR software. If patients are scheduled for lab appointments, I must place them in the phlebotomy lab queue using P&P Data Systems’ Clinical Information System software. Prior to queueing patients for labs, I am required to review their charts to make sure their providers have ordered labs for their appointments and notify their providers’ Office Coordinators via phone or email if labs have not been ordered. I am also responsible for providing new patients with the necessary paperwork and virtual questionnaires for their initial appointments.

Techniques: I must manage my time effectively in order to work efficiently in a high-volume clinic. To assist in managing my time effectively and minimizing errors, I must make sure my desk, files, and computer are organized at all times. To ensure that proper clinic flow is maintained, I must be careful to follow all necessary steps to check-in patients and maintain an open line of communication with my coworkers and supervisors. Finally, I must remain calm in difficult and stressful situations, such as when the clinic is running behind or when patients are upset with their treatment or diagnoses.

People Skills: The most valuable interpersonal skill that I have used during my time at MSK is teamwork. My teammates and I would not be able to keep such a high-volume clinic flowing effectively without working together. We have to collaborate to complete tasks in an effective manner on a daily basis. Also, I learned the importance of communication with teammates and supervisors. I regularly have to communicate information regarding patients via email, phone, and Microsoft Teams.

Results: Throughout my internship, I gained confidence when interacting with patients and my fellow staff members. Also, I was able to minimize the clinic’s wait times by accurately and efficiently checking in patients for appointments. Additionally, I improved my organizational skills and learned to work well under stress and in a fast-paced environment.

Lessons Learned: This position has taught me that patients will not always be cooperative and things will not always go as planned, and I must adapt to those difficult situations. Prior to beginning my work at MSK, I was not sure if I would be able to handle working with cancer patients, I thought it might have been too emotionally taxing for me. However, I now realize that, although working with cancer patients can be upsetting at times, it is also incredibly rewarding.
Title: Patient Care Coordinator

Name: Jennifer Wang

Preceptors: Jenny Yuen, Assistant Manager of Outpatient Operations

Agency: David H. Koch Center for Cancer Care at Memorial Sloan Kettering Cancer Center

Purpose: To serve as a resource, ensuring optimal patient satisfaction and access to care by maintaining consistent communication between the patient and the clinical team.

Significance: Memorial Sloan Kettering Cancer Center — the world’s oldest and largest private cancer center — has devoted more than 135 years to exceptional patient care, innovative research, and outstanding educational programs. The close collaboration between their physicians and scientists is one of their unique strengths, enabling MSK to provide patients with the best care available as the organization works to discover more-effective strategies to prevent, control, and ultimately cure cancer in the future. As a Patient Care Coordinator, I engage with patients and help to ensure they are able to more smoothly navigate their care. In this role, I served as the primary role in advocating for patients to ensure that they are receiving the best care possible while performing administrative tasks such as answering phone calls, entering patient data, and coordinating multiple schedules.

Method/Approach: The Care Coordinator's responsibilities include ensuring that patients have completed all necessary paperwork and questionnaires prior to appointments, providing information about current and future appointments, and acting as a liaison between the clinical staff and the patients and their families. There is also the underlying responsibility of ensuring that patients are welcomed and comfortable throughout their stay at MSK. One component of day-to-day employment is greeting and checking in patients, and doing it in a pleasant manner. As a result, each patient has a better experience at Memorial Sloan Kettering while receiving the treatment they require. With this warm greeting, each patient's rapport is created as time is spent to connect with them individually. This happens concurrently with the check-in procedure and has the ability to help calm any nerves and create a welcome atmosphere.

Outcomes/Results: Most of the time, a pleasant greeting upon check-in helps to establish a welcoming atmosphere and is highly received. It's critical to strive to have the most positive influence on their day as possible. However, there are a variety of reasons that might create delays in patient visits in the healthcare context. As patients anxiously wait in the waiting area, sometimes for many hours, this is frequently the source of dissatisfaction for them. Frustrated patients often feel more at ease knowing someone is there to take care of them and actually listen to their worries if you constantly answer and assist in a calm tone and go out of your way to help.

Evaluation/Conclusion: There are certain administrative responsibilities that a Care Coordinator must follow, but by demonstrating empathy and compassion regardless of the circumstances, real differences can be made in the lives of cancer patients who appear to have almost no power over an ailment that is consuming their lives. The accumulation of small acts of kindness goes a long way toward making a lasting impression. To summarize, it is essential to work towards making someone's day brighter at Memorial Sloan Kettering. A welcoming face coupled with patience and empathy might have a significant influence on the course of a patient's experience.
Purpose: To act as a resource, consistently maintaining communication between the patient and the clinical team in order to ensure proper patient satisfaction and access to care.

Significance: Each year over 1.6 million people are diagnosed with cancer in the United States, with almost 600,000 dying from it (CDC). On top of this there are existing cancer patients that require continued care, as well as patients who come from out of the U.S. to Memorial Sloan Kettering for their cancer needs. Arguably one of the toughest diseases a patient and their loved ones can be faced with, the best and most comprehensive care is needed. Memorial Sloan Kettering Cancer Center provides this service with renowned physicians and staff. As a Care Coordinator I, I engage with patients and help to ensure they are able to more smoothly navigate their care.

Method/Approach: One aspect of day to day work is to greet and check-in patients, and to do so with a warm welcome. This helps each patient to have a more positive experience at Memorial Sloan Kettering as they receive the necessary care. With this warm welcome, rapport is built with each patient as time is taken to engage with them personally. This occurs alongside the check in process and holds the potential to help ease any existing nerves and create an overall welcoming experience.

Outcomes/Results: Most often a warm welcome during check-in helps to create a friendly environment and is well responded to. There are even a few familiar faces that come up. At the same time, there is every once in a while a patient to which a warm welcome does not appear to make an impact and that is ok. Each patient that shows up is on their own journey and has potentially had treatment or other appointments that day from which they are coming. Overall it is important to try and just make the best impact on their day that is possible.

Evaluation/Conclusion: To conclude, it is so important to work to brighten someone’s day at Memorial Sloan Kettering. One never knows the impact that a friendly face might have on the trajectory of a patient’s experience. Practicing patience and empathy towards others can go a long way. It is a personal priority to act as a friendly and welcoming face for all who pass through.