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Edward J. Bloustein School
of Planning and Public Policy

Fall 2020 Abstract Book



Internship Abstract

Traditional Internships

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Internship Abstract

Title: Self-Directed Care: Stakeholders' Perspectives on the Impact of Non-Traditional Services and Goods for People with Behavioral Health Needs

Name: Jazmine Alcon

Preceptors: Dr. Ana Stefancic, Associate Research Scientist and Daniela Tuda, LCSW

Agency: Department of Psychiatry, Columbia University Medical Center

Purpose: To evaluate stakeholders' views of non-traditional services and goods secured through the Self-Directed Care Program and the impact of these resources on participants with behavioral health needs.

Significance: Nearly one in five American adults will be diagnosed with a mental health condition (National Institute of Mental Health, 2020). While those receiving Medicaid are able to access a range of services, many need additional resources or support in order to continue to engage in their own recovery. Under New York State's 1115 waiver, Self-Directed Care (SDC) was introduced as a pilot program at two different sites for individuals with behavioral health needs. The program provides funds for participants to have more autonomy in their recovery and treatment.

Method/Approach: Semi-Structured interviews (N=15) were conducted virtually with key informants from both SDC pilot site agencies (e.g. support brokers, care coordinators, supervisors) and leadership staff from various divisions within the Office of Mental Health. Interviews were audio-recorded, transcribed, and cleaned. Brief interview summaries were written concurrently during the interview that summarized the overall content of the interview. A codebook was developed consisting of terms and phrases that encapsulated agency structures, staff roles, participant experience, and program impact. Interviews were coded and analyzed using content analysis. Memos were also written to document preliminary interpretation of themes and coded data regarding specific topics.

Outcomes/Results: Stakeholders unanimously emphasized that the program increased participants' ability to identify and meet an array of wellness and recovery goals. They noted that the ability to purchase non-traditional goods, particularly technology (e.g., phones, internet service, computers), clothes, and transportation, facilitated participants' ability to pursue goals related to education and employment. Access to non-traditional services, such as complementary and alternative medicine (e.g., acupuncture, massage therapy) was cited to have a positive impact on their physical health and well-being. Stakeholders believed that participation in the program was associated with an improved sense of wellness, hope, and quality of life. There was a lack of clarity regarding whether the ability to purchase goods and services through SDC was associated with reduced use of more traditional, but costly, emergency or inpatient services.

Evaluation/Conclusion: Findings support the continued use of SDC, with stakeholders generally agreeing that it supports recovery for people with behavioral health needs and facilitates their ability to meet self-defined goals. Additional research is needed to determine the program's impact on use of specific types of services as well as an assessment of cost-effectiveness. Recommendations to improve the program's sustainability and ability to scale up includes increase in staff, streamlining the intake process, and standardizing program processes across different sites.

Internship Abstract

Title: Fact-checking and Updating Modules About Life Skills and Education Programs

Name: Arsema Amare

Preceptors: Donna Custard- President of The New Jersey Chamber of Commerce Foundation

Agency: The New Jersey Chamber of Commerce Foundation

Purpose: To update educational modules that serve over 400 teens for America's Graduates New Jersey programs.

Significance: Education modules created by the New Jersey Chamber of Commerce Foundation teach teens about basic life skills, postsecondary education, and work options for when they graduate high school. These modules are designed to be self-guided by students and are relevant and useful in a virtual educational environment as well as in-person instruction. It is important that these modules are kept up to date and have the latest factual data so that they can stay relevant to the teens who are accessing them. This project ensured that training information is free of errors so students stay engaged and become productive members of society.

Method/Approach: Between August 17th and December 8th, eight learning modules were reviewed for revisions. Each module was proofread to find grammatical errors and flagged if information needed to be verified. Tracking of outdated information and typos has been documented on a Google Docs sheet. First, each module was proofread to document grammatical errors and typos found. Then, statistics that were not cited or outdated were flagged. Next, research was completed to support a missing statistic or to update other information. Then, the supervisor was informed when research has been completed. Lastly, graphics were used to make the modules aesthetically pleasing and user-friendly.

Outcomes/Results: There were eight modules that were reviewed, cited, and updated with accurate information. The first module, "Stay out of Debt", had 2 grammatical errors and 19 citation updates out of 119 slides. The second module, "Don't Burn It", had zero grammatical errors and 20 citation updates out of 93 slides. The third module, "Ace the Interview", had 8 grammatical errors and 33 citation updates out of 128 slides. The fourth module, "Choose the Right Course", had 1 grammatical error and 21 citation updates out of 65 slides. The fifth module, "Tassel is Worth the Hassle," had 10 grammatical errors and 24 citation updates out of 76 slides. The sixth module, "Things to Know as You Go", had 5 grammatical errors and 19 citation updates out of 78 slides. The seventh module, "To Market", had 10 grammatical errors and 24 citation updates out of 86 slides. The eighth module, "Real World University", had 2 grammatical errors and 10 citation updates out of 85 slides. Once all of the graphics have been implemented, they will have a final review by my supervisor. When this is completed, the modules will go online in mid-December.

Evaluation/Conclusion: The work produced is contributing to a bigger picture by ensuring the modules stay relevant, educational, and insightful for its audience. The modules consist of basic life skills, information about jobs, and postsecondary education options; it is essential that fact-checking is properly done so that teens across New Jersey can easily transition into adulthood. Graphic data will be completed in early December 2020. Barriers that were encountered during this time period include not being able to find reliable sources for text. To overcome this, multiple sources had to be cited for each paragraph of information rather than one for the entire module section.

Internship Abstract

Title: COVID-19: The Impacts of the Pandemic on Local Businesses in NJ

Name: Brittany Archer

Preceptors: Dr. Bruce Ruck, Toxicologist

Agency: New Jersey Poison Control Coronavirus Hotline

Purpose: To analyze the ways in which COVID-19 has impacted small, local businesses in NJ.

Significance: COVID-19 has had detrimental effects on several businesses and schools in NJ. Local small businesses have had huge financial losses due to the pandemic. Businesses have had to change their hours according to city curfews, close for safety reasons, and face the loss of clients who fear the risks associated with going out to public places during the pandemic (NJGov).

Method/Approach: By observing the variety of calls received at the New Jersey Coronavirus Hotline, it is evident that several local businesses have been experiencing financial losses because of the COVID-19 pandemic. The majority of the calls at the COVID-19 Hotline that are from business owners are pertaining to the necessary steps that must be taken after a customer or an employee has been confirmed COVID+. After a COVID-19 exposure, businesses must close for a minimum of 24 hours, depending on the guidelines from the Local Health Department, and must hire professional cleaners to sterilize the facility. In addition, if the COVID+ was in close contact with anyone, those people must be contacted regarding their exposure. This can lead to further loss of clients due to distrust in the place of business's safety and COVID protocols.

Outcomes/Results: As expected, with the emergence of a new strain of a virus with little known information, people are anxious and fearful of the great risk of exposure when they leave their homes. Therefore, there are already decreased amounts of customers visiting public businesses. In addition, businesses are restricted to the amount of customers they can allow inside at once due to social distancing protocols. Under Executive Order No. 183, food and beverage establishments in NJ must limit the number of customers in indoor areas to 25% of the establishment's indoor capacity, excluding the employees (NJGov). Indoor performance venues, such as theatres, are limited to 25% capacity with a maximum of 150 people (NJGov). Due to the current spike in COVID-19 cases, Mayor Ras Baraka has placed new measures for the city of Newark, NJ. As of October 27, the majority of indoor businesses must close at 8pm and outdoor activities must cease at 11pm (NewarkNJGov). As a result, businesses are losing income while spending finances on COVID-related resources, such as professional cleaners and sterilizers.

Evaluation/Conclusion: In conclusion, COVID-19 has forced change among everyone. Unfortunately, these changes have required plenty of sacrifices. Due to current circumstances, the mandated protocols that have been discussed are essential for the safety of the public. Therefore, it is important for businesses to work around these protocols. Future suggestions for the businesses that have been affected by these changes include, attempting to switch over to non-contact services, such as "Delivery Only" services for restaurants. Many individuals rely on their businesses as their source of income. Therefore, individuals have had to overcome the risks associated with keeping a business open during a pandemic.

Internship Abstract

Title: Escaping Domestic Violence: Empowerment Program for Women

Name: Sara Bailey

Preceptor: Wafaa Saad, CSW, MA, Founder and Executive Director

Agency: Women And Families Ascending Association (WAFAA)

Purpose: To create a program focused on paths to independent living for women who face homelessness after escaping domestic violence.

Significance: In studies examining the causes of homelessness, domestic violence was the immediate cause of homelessness, which reported for 50% of all homeless women¹. At the nonprofit, we have seen many cases of women who have left their homes and relationships due to domestic violence and do not know what to do next. Most times victims overstay in relationships due to financial security. Abusers prey on this as they entrap the partner in the relationship by taking away any ease in leaving, which may include withholding any financial accounts and/or threatening for custody for children. As a result, survivors lack economic resources to secure or maintain housing after leaving, education on how to live life on their own, and confidence to succeed. The goal of this project is to develop a program for survivors to combat these issues. The program will include workshops to better their economic and educational situation, emergency housing, counseling, legal assistance, and free donations.

Method/Approach: Intake interviews were conducted by both interns and caseworkers for 16 women. Caseworkers then followed up with individualized counseling. Counseling sessions included goal-making and coaching with a center on developing a career plan, which emphasized on finding employment and/or enrolling in adult schools and continuing education. An Empowerment Toolkit and a job referral from organizational partnerships and other outreach organizations were provided to women. To address the economic needs of survivors, a financial literacy guide was provided to survivors, which contained fundamental understandings of banking and ways to create savings. To minimize the cost of basic needs, food was made available from the local food pantry to either be picked up or delivered. Women were provided with free legal aid lawyers for all legal assistance needed during this time.

Outcomes/Results: Counseling sessions provided guidance for future independent living for survivors. To analyze the effectiveness of the program, the Escaping Domestic Violence survey was taken by victims who have completed the initial steps in the program. Ninety-four percent of the women who completed the survey believe that the program helped them. The survey responses were then reviewed by volunteers and caseworkers as a follow-up.

Evaluation/Conclusion: A process evaluation will be completed by the main caseworker assigned to each case. Women who participated in the program will have the opportunity to discuss possible room for improvement and the effectiveness of the empowerment toolkit. Due to limited accessibility during COVID-19, it has been challenging to help create a sense of community with all the women together. Moving forward, it will be beneficial to add workshops and support groups available for women to join collectively. These workshops will include various resources about career development, education, financial literacy, and basic needs with activities that can be done in groups.

Internship Abstract

Title: Efficiency in Client Protected Health Information Archiving

Name: Ava Bejgrowicz

Preceptors: Rose Sample, Director

Agency: BAYADA Home Health Care, Pediatrics - Cherry Hill, NJ

Purpose: To archive 6 years of Protected Health Information and employee personnel and clear physical space in the office to increase organization and reach legal compliance for the Pediatrics office.

Significance: Every healthcare facility in the United States must abide by certain protocols in accordance with State regulation regarding patient protected health information. Clients of BAYADA Home Health Care must trust the office staff to protect and hold their private health information. BAYADA Pediatrics client files must be kept for at least 7 years or until the client is 25 years of age, whichever is greater. Archiving files ensures that records can be accessed in a timely fashion if needed for insurance or legal auditing. A recent policy change towards electronic medical records calls for a comprehensive archiving project to increase the efficiency of space and time in the office.

Method/Approach: A large scale archiving project was completed which boxed 6 years of client files, with seventeen types of files. Files were sorted into boxes by year and client, alphabetically. Fourteen filing cabinets which were once full of paper files were emptied, making space in the office. The project archived many files from before a policy change at BAYADA which began storing nurses notes electronically. Nurses notes took up approximately one third of the archiving boxes. On-call logs, which are now filed electronically as well, took up one and a half boxes out of the twenty-one filed. A master spreadsheet on Microsoft Excel was created in order to minimize time spent searching for the client's files according to year, file type, and box number.

Outcomes/Results: Twenty one boxes were packed and sent to the archiving company. Each box held 186 square inches of space for file and was packed to capacity. Fifty-two clients under the age of twenty-five were archived. Ten clients had their files shredded as they had aged out of HIPAA Policies to keep patient information. The fourteen file cabinets that are now completely emptied and without a purpose can be removed from the office, freeing 252 square feet of valuable space throughout the office.

Evaluation/Conclusion: This massive project will not need to be done again at this scale, as the policy change in 2018 greatly lessened the amount of paperwork regarding clients and only 2019-20 client files remain for next year's archiving. Electronic files are now kept for a minimum of 3 years online and a minimum of 10 on another storage media. As BAYADA moves forward with archiving projects throughout the years, Microsoft Excel spreadsheets may continue to be a useful tool for organizing client and employee information.

Internship Abstract

Title: Bereavement Binder
Name: Tenia Bey
Preceptors: Vellus Campbell, Volunteer Coordinator
Agency: Holisticare Hospice

Purpose: To provide information to families that need support and guidance on what they need to do once their loved ones have passed.

Significance: At home or in a facility, hospice's approach is to care. Family members, patients, and staff all have to work together to make sure the patient is the number one priority. Hospice is connected to making sure the person has comfort, support, and dignity at the end of life. There needs to be help for the people that are grieving and have a connection with the patient. A bereavement support team for the family and staff to get through the grieving process would help families who use Holisticare Hospice services.

Method/Approach: First, information on community resources, bereavement services, home care agencies, home care services, transportation for seniors, senior volunteer services, volunteer services, health services, adult daycare, veterans' services, funeral services, books about home care, and list of books on grieving information was gathered. Next, a list of these services was created and research was conducted on ratings for the programs. For eligible programs, phone calls were made to ensure businesses were still available. A binder was created that listed the resources in alphabetical order. The programs included names, addresses, phone numbers, zoom meeting IDs, and email addresses.

Outcomes/Results: One 80-page printed binder was completed for the office for staff and visitors to use. It was also sent electronically to all employees in the office to send to patients' loved ones. The families will get the list through email and if they don't have an email then we will send a hard copy to their homes. There is only one copy made but if more needs to be printed everyone in the office can print from their computer.

Evaluation/Conclusion: Due to the COVID-19 pandemic, we had to stop all patients, family members, and staff from having much contact with each other. This outbreak prevented hospice members having close contact with one another unless it was a medical professional. What went well is the resources were easy to locate and were able to receive on the Internet. One barrier was confirming the information by phone. In future binders, it would be nice to include how the binder helped the patients' loved ones. The binder is to guide the patients, families, and staff all the resources they need but in a safe healthy environment.

Internship Abstract

Title: The Effect of Color on Healing
Name: Zaina A. Chaudhry
Preceptors: Dr. Gloria A. Bachmann, Director of The Women's Health Institute
Agency: RWJMS Women's Health Institute

Purpose: To evaluate the role of color and the extent of its impact on an individual's physiological and psychological healing process.

Significance: In the modern day, allopathic medicine has been seen as the sole methodology for aiding an individual in physical and even mental recovery. Evaluating supplemental methodologies, such as the effect of color on the human brain, can allow for the integration of alternative approaches in modern medicine. Understanding the impact of color on healing can be instrumental when designing hospitals, or even medical provider attire. A systematic review of relevant literature will provide deeper insight into not only the validity of this claim, but also the extent to which color can impact an individual's healing process.

Method/Approach: A systematic literature review was conducted and the following three studies were evaluated: "Does the installation of blue lights on train platforms prevent suicide? A before-and-after observational study from Japan"; "Effect of colour of drugs: systematic review of perceived effect of drugs and of their effectiveness"; and "Cool Down Pink." An interview with a designer was also conducted in order to gain professional insight on the subject matter.

Outcomes/Results: The Tokyo study on the effect of blue lights on suicide prevention was the first study analyzed. In response to the increasing suicide rates at train stations in Japan, an initiative was taken to install blue light-emitting-diode (LED) lamps in 71 Tokyo Metropolitan Area train stations. As a result, an 84% decrease in suicide had occurred. The second study examined the effect of the color of drugs on individuals who consumed them. The "perceived site of action" was different amongst subjects when evaluating the function of the pills based on color. Red or scarlet pills were perceived by subjects to work in the cardiovascular or lymphatic systems. Subjects were given blue and pink placebo pills. 66% of the subjects given blue pills reported that they felt less alert and more drowsy while only 26% of the subjects taking the pink pill felt less alert and drowsy. The third study experimented with the color pink in Swiss prisons and found the color to prevent aggression amongst inmates. In the interview with the designer, she highlighted the importance of designing each medical unit with its own unique color palette, as different groups of individuals require different colors to heal (i.e. pediatrics, maternity).

Evaluation/Conclusion: Based on the results presented in this case study, it is evident that color may have not only a psychological, but also a physiological impact on individuals. Certain colors evoke certain feelings and emotions. These emotions can be harnessed to promote physical wellbeing in the human body. Being surrounded by a space that utilizes colors which lead to a positive mental state can be beneficial in an individual's healing process. Understanding how certain colors make people feel can prove beneficial especially in settings that are designed to promote healing, such as a hospital or a medical clinic.

Internship Abstract

Title: Integrating Salesforce with COVID-19 Delivery Expansion
Name: Adam Cohen
Preceptors: Ginny Adams Kafka, Executive Director
Agency: Anshe Emeth Community Development Corporation

Purpose: To further integrate Salesforce into daily operations of the Central Jersey Diaper Bank (CJDB) program.

Significance: Over twenty percent of children in the United States live under the federal poverty line. Children living in families experiencing financial hardship are more likely to experience negative outcomes in health, learning, and overall development if the hardship is sustained. While the United States has some programs that attempt to address hardship from poverty, none of them assist with diapers. Diapers cost on average around \$20 a week, adding up to \$1040 a year for each child in diapers. If a family is unable to afford enough diapers for their children, they attempt to stretch the supply that they have, leading to less frequent diaper changes. Babies left in dirty diapers experience higher rates of urinary tract infections and diaper rash. It is also linked to increased stress in the household due to the constant crying.

Method/Approach: First, monthly reports were created in Salesforce in September 2020 to quantify current distribution of diapers to clients. Previously, clients received services only if they reached out to the Diaper Bank. New methods of reaching out to previous, eligible clients were established including email and phone calls. In addition, walk-in clients were also added to the system and follow-ups were sent.

Outcomes/Results: Between March and June, the CJDB on average gave out 35250 diapers per month where roughly 10% of them were delivered (3543 per month). Between August and November, the CJDB gave out 31500 diapers per month and more than 53% of them were delivered (16847 per month). Through better utilization of Salesforce to identify clients to reach out to, we were able to vastly expand deliveries to clients throughout the county.

Evaluation/Conclusion: The integration of Salesforce into the new outreach and delivery process enabled the CJDB to expand its reach throughout the county while balancing the new difficulties that COVID-19 challenges everyone with. As the weather starts getting colder after October, the CJDB no longer could easily service large groups of clients who would need to wait outside in line. Expanding the agency's ability to reach out to its clients ensured that it could continue serving over 400 families a month.

While the project has helped the CJDB expand its service, further adjustments to the program would assist with its efficiency and efficacy. The primary method of reaching out to clients is by calling clients and establishing contact. Expanding the methods of outreach to include texting and email will not only enable them to better get in contact with clients but also increase the rate they are able to schedule clients for service. Additionally, as the CJDB collaborates more effectively with partner agencies, they will be able to serve large groups of clients at once.

Internship Abstract

Title: New Jersey COVID-19 Response: Identifying Areas of Vulnerability

Name: Matt Cooney

Preceptors: Supervisor: Devangi Patel, Deputy Public Health Officer

Agency: Montgomery Township Health Department (MTHD)

Purpose: To identify areas of vulnerability in New Jersey's pandemic response, from a local government perspective. Contact tracing (CTR) for COVID-19 using investigative analysis to reduce transmission while protecting vulnerable populations in Montgomery Township and the Boroughs of Hopewell, Pennington, and Rocky Hill.

Significance: As of November 27th, there have been 326,000 confirmed cases of coronavirus, including 15,000 deaths, statewide (The State of New Jersey). CTR methodically tracks the disease and protects at-risk individuals (Harvard Health Publishing). Addressing new cases within 24 hours of diagnosis and identifying close contacts during their infectious period can impede transmission. MTHD has expanded its CTR program, hosted flu clinics to combat the projected surge in cases, and maintained communication with the community, local businesses, and government agencies. Protective measures such as social distancing, masking, handwashing, and CTR have individually been ineffective (New Jersey Department of Health). The current state-level response places a workload that is beyond local health departments' (LHD's) capacity to handle due to a lack of resources, delays in reporting from labs and businesses, misunderstanding of the local public health structure and outdated system infrastructures. To disclose areas of vulnerability in a comprehensive manner to the state, an Ishikawa "fishbone" diagram was produced to propose a list of concerns and recommendations to the state.

Method/Approach: Diagnosing weak points in the COVID response required qualitative interviews with MTHD staff and other public health professionals. Feedback was collected from meetings, data reports, emails and phone calls with other LHD's. From September to December, specific needs of LHD's were documented and ranked depending on the net impact of the issue at hand and the hindrance it created. Once areas of imperfection were graded, the list was consolidated into a succinct group of categories determined to be a source of the problem.

Outcomes/Results: The Ishikawa diagram indicates that the areas of concern are resulting in suboptimal contact tracing. LHD's are lacking resources to effectively stop transmission and have not received adequate support from the state. The number of new contact tracers remains stagnant while new cases per week are increasing exponentially. LHD's report the need to modernize state public health systems to compile a centralized outbreak system and streamline paperless communication with businesses, lab facilities, and other LHD's. Furthermore, enforcing timely reporting from labs expedites CTR, allowing LHD's to increase productivity. Logically relaying these needs to the state can yield a more efficient, user-friendly system that better helps track and contain the disease.

Evaluation/Conclusion: Updated public health systems streamline communication and prove critical in the fight to contain the disease. Using epidemiological curves and current data, the efficacy of the recommendations can be measured while addressing unresolved needs of LHD's expeditiously.

Internship Abstract

Title: Partnership Between NJCEED and RCINJ
Name: Kate Coronado
Preceptor: Michelle Jansen, MS, MAT, Community Cancer Control Specialist
Agency: Rutgers Cancer Institute of New Jersey

Purpose: To synergize the relationship between New Jersey Cancer Education and Early Detection (NJCEED) and Rutgers Cancer Institute of New Jersey (RCINJ) and create a repository of resources to mitigate barriers to engagement.

Significance: New Jersey's age adjusted incidence rate for cancer has historically been higher than that of the United States. Cancer screenings are the best way to identify cancer in its earliest stage, before symptoms are noticeable. Between 3% and 35% of cancer deaths could be avoided through screening (NJSHAD). NJCEED allows men and women aged 45 and above for free cancer screening services if they are uninsured, under-insured, and have incomes less than 251% below the poverty level. This cancer screening covers breast, cervical, colorectal, and prostate cancers. If individuals are screened and receive positive results, NJCEED will create an appointment with Medicaid, and assist with case management, tracking, follow-up appointment, facilitation into treatment, education, and outreach.

Method/Approach: A survey to collect data was conducted via Qualtrics and sent out to NJCEED and other related agencies' employees. The survey consisted of 21 questions and received 31 responses. Respondents were invited to a focus group that was conducted virtually via Zoom. Attendees consisted of community outreach coordinators, cancer experts, social workers, and other public health officials. The focus group was headed by a moderator that asked questions related to the survey. Notes were taken simultaneously on Google Drive to support data from the Qualtrics survey.

Outcomes/Results: The Qualtrics survey yielded results from participants that showed concerns for their prostate cancer engagement, and overall online engagement. Focus group participants unanimously emphasized that there was a need for educational materials and a communication interface. Concerns regarding engagement were vocalized, with COVID-19 being speculated as to the main conflict. Additional barriers in connecting community members included lack of male engagement, fear of immigration status, and lack of incentive funding. Participants verbalized that online education materials through Rutgers resources would be beneficial.

Evaluation/Conclusion: Implementation of a repository increases the convenience of the patient interface, that should further increase patient engagement. Further use of this platform will allow for convenient communication among partnering organizations in the future. Future research is needed to mitigate in-person barriers to engagement.

Internship Abstract

Title: Using Search Engine Advertisements to Promote Health Care Services

Name: John Couzzi

Preceptors: Dr. Frank R Stiso DC BCN

Agency: Stiso Chiropractic, Acupuncture and Massage Therapy

Purpose: To promote health care services on Bing and optimize advertisements to reach larger audiences.

Significance: During uncertain times, businesses struggle to return to their normal operation capacities. The same holds for small-scale health care facilities as many people do not yet feel comfortable seeing doctors for care that they do not feel they are in dire need of. To compensate for a lack of business, new patients must be acquired. One of the best ways to achieve this is through search engine advertisements as they can expose far more people to businesses according to the track records of these platforms.

Method/Approach: Dr. Stiso already advertises on Google to appear in search results more often than competitors in the area. He expressed interest in appearing in search results accessed by in-home voice assistants such as Amazon's Alexa. A similar campaign was set up on Microsoft's Bing, where Amazon goes for all their internet searches, to reach more people on different electronic devices. Advertisement interactions can be viewed and compared to the number of new patients seen each of those weeks compared to the previous month when the business was only being advertised on Google. Dr. Stiso asked that patients not be asked where they heard of the business when they arrive at the office to maintain a professional environment and minimize the number of people floating around the office.

Outcomes/Results: The Bing advertisements began on October 11th and data was collected over the following 35 days. For the week of October 11th, the campaign made 1,801 impressions and 20 users clicked on the link to the office's website. The following week saw a slight improvement to 2,337 impressions and 27 clicks. The week of October 25th is interesting because Dr. Stiso decided to increase the budget of the campaign to increase the exposure. A decrease in impressions down to 2,147 and a significant increase in clicks up to 45 were observed. The week of November 1st saw the budget benefits increase as there were 2,323 impressions and 43 clicks. The final week was the most successful as it generated 2,541 impressions with 50 clicks. The average number of new patients seen in the office each month across all services since the pandemic began is between five and eight. Not all patients return for regular treatment, but getting them in the door and providing quality care is paramount. Over the five weeks that the Bing campaign was running, the office saw 12 new patients. All data was collected on site in Dr. Stiso's office.

Evaluation/Conclusion: The advertisement campaigns were chosen and financed by Dr. Stiso, which gave him the final say when it came to decision making. It would be fair to expect the numbers to increase over the coming weeks with further budget increases. It is evident that larger budgets increase exposure, making it safe to assume that further increases in funding will expand exposure. The request that new patients not be asked where they heard about the services offered in the office, perhaps the campaign did not have an impact on the increase in the number of new patients seen. Patients can find information about the office from the Facebook page, google search results, word of mouth, and referral from another healthcare provider. What is important is that Dr. Stiso acquired more patients, whether Bing advertisements helped or not.

Internship Abstract

Title: Healthy Recipes and Live Well-Vivir Bien New Brunswick Social Platforms

Name: Karen Mejia Corbera

Preceptors: Director Supervisor: Manuel Castaneda, Community Health Director

Agency: New Brunswick Tomorrow- New Brunswick, NJ

Purpose: To encourage healthy eating through social media by utilizing short videos in order to grow the Live Well-Vivir Bien media presence.

Significance: According to the New Jersey Childhood Obesity Survey done in 2010 “[a]lmost all of New Brunswick children (88%) do not meet recommendations for vegetable consumption” and “[a]bout half report limited availability of fresh produce and low-fat items at their main food shopping store.” The Live Well-Vivir Bien New Brunswick campaign focuses on holistic health, addressing some of the overarching social determinants of health. Live Well focuses on five areas of health and one of them is the Eat Well section. The Eat Well section focuses on promoting healthier eating resources available for the residents of New Brunswick. By promoting Farmers Markets, Community Gardens, Soup Kitchens, Food Pantries and Cooking Classes. Through this section not only are the New Brunswick residents directed towards healthier food options but are now also encouraged to cook quick, sustainable and healthy recipes.

Method/Approach: The Live Well-Vivir Bien campaign focused on posting short video recipes that maintain their audience's attention. Previously, to posting short videos the Live Well campaign would post healthy recipes and they did not gain any traction. In order to maintain the followers attention the Live Well campaign selected 30second to a minute video that not only provided the follower with the recipe but also provided the final product. The short clips were posted Mondays and Wednesdays on both the Facebook and Instagram account. The videos were selected from both Tik Tok and Instagram not only by their viralness on those platforms but as well as their content. The recipe videos were not only selected on being healthy but also had a special consideration to the Black and Hispanic community in New Brunswick.

Outcomes/Results: Data was collected from both the Instagram and Facebook page beginning in the month of October to November. For the Data Live Well measure the increase in views and reach. Views are the number of times the video was watched and reach is the number of people that saw the post on their account. During the month of October the Pastelon recipe (Plantain Lasagna) received 57 views on Instagram and 19 views on Facebook but reached 106 people on Instagram and 48 people on Facebook. While during the month of November the Masala Chicken Skewers recipe reached 30 views on Instagram and 9 views on Facebook. It however reached 40 people on Facebook and 96 people on Instagram.

Evaluation/Conclusion: By utilizing short videos that grab the viewer's attention the Live Well campaign has been able to increase their reach and should continue to post recipes that are not only healthy but also entertaining to watch.

Internship Abstract

Title: Maintaining Health and Safety in a Clinical Environment through Covid-19

Name: Sushmitha Dondapati

Preceptors: Dr. Thao Phan RPH

Agency: Hartley Pharmacy

Purpose: To maintain the health and safety of a pharmacy clinic through conducting literature review and searches to find the most up to date information and guidelines regarding the Covid-19 Pandemic.

Significance: There have been over 250,000 cases and nearly 25,000 deaths due to the novel coronavirus in New York City. As an independent pharmacy in the heart of it all, serving vulnerable populations and acting as role models, it is of utmost importance to ensure that it maintains health and safety a top priority. To do so, the pharmacy needs to stay up to date on the most current information and guidelines regarding the coronavirus, through current literature review. Updated safety policies and protocol documents were needed for the agency to adhere to ongoing compliance regulations. Additionally, an easily accessible data set of information was needed for city inspectors to audit the proficiency and compliance levels of the agency.

Method/Approach: An easily accessible digital data set with all the necessary information regarding health compliance was created. The action steps included maintaining a daily temperature log of all on site employees, maintaining a cleansing and disinfecting log, and finally creating a six page safety opening plan documenting all the measures taken to ensure safely keeping the establishment open. These were carefully created based on thorough literature review found directly from the New York State Department of Health website. Despite being a relatively new subject, there are hundreds of new daily articles available on the novel coronavirus and how to take action and precautions against it. However, the real challenge was finding information that was useful and relevant to pharmacies. Considering the rules and regulations of the New York State Department of Health guidelines found, the safety opening plan was drafted and completed.

Outcomes/Results: The online database stores the daily temperature log information at the time of arrival of the three on site employees of the pharmacy. In conjunction, there is a secondary and equally important easily accessible online data set created that stores a daily cleansing and disinfection log. The latter one states different cleansing and disinfecting tasks needed to be accomplished and records the data on who and the time at which it was completed. Maintaining both these logs are mandatory in order to be in compliance with New York City and state guidelines regarding the Covid-19 pandemic. Additionally, beyond simply maintaining a handwritten log, these logs are also available online to provide efficiency and easy access during the time of an audit by a health inspector. In addition to the logs, there is a six page safety opening plan document drafted and completed.

Evaluation/Conclusion: Although no health inspection audits were conducted yet, following all of the New York City and state guidelines regarding Covid-19 and staying compliant will ensure the pharmacy will successfully pass the inspection without any fines. This is a preventative approach to ensure that the pharmacy can continue to stay open to provide essential services and serve its patients during their time of need.

Internship Abstract

Title: Mentorship Development Program for New Brunswick Community
Name: Mustapha Elgamal
Preceptors: Emmanuel Ford, Esq. Founder and Executive Director of NBEF
Agency: New Brunswick Education Foundation

Purpose: To develop a mentorship program to help serve high school students, college/grad school students, and young professionals (all from New Brunswick) in their respective goals.

Significance: Oftentimes, individuals are highly motivated and have immense potential, but they struggle with finding a sense of direction. The New Brunswick Education Foundation (also referred to as “NBEF”) will help alleviate the stress of finding a sense of direction through the launch of an E-Mentorship Program. NBEF has over 300 students currently enrolled or previously enrolled through our College & Young Professionals Network. The goal is to give all past and current students the opportunity to apply to be mentored, or even become mentors if their schedule and skills permit.

Method/Approach: We are currently in the first year of administering this program. This means that all parts of the platform has been created from the ground up. The first steps included creating all of the documentation that would allow us to succeed in this new territory. This included, but was not limited to, an evaluation of mentors and mentees, a full calendar year worth of talking points that mentors could utilize if they so choose, and forms that detail all expectations from mentors, mentees, and administration. Once all of the formal paperwork was completed, we shifted our focus to filling positions. The process has started by reaching out to all individuals currently in the New Brunswick Education Foundation cohort and announcing the start of our pilot mentorship program. If students were interested, they could move on to the application process. Once expectations are understood, applicants are then brought to an application survey in which we collect data on areas of expertise, education level, age, etc. to help ensure a bespoke partnership has been established.

Outcomes/Results: Our goal was to create a platform that would help serve the New Brunswick community for many years to come. We have currently put in motion our pilot program that will tentatively begin in February 2021. We have partnered with Chronus, a well-established mentoring program that has joined efforts with many non-profits and large corporations in the past. Our end goal is to have all aspects of the program ready to announce at a virtual fair that we will be holding on December 30th. We hope to garner the attention of individuals who wish to sign up for our program while orchestrating our annual holiday event. The goal is to establish 25 pairings, for a total of 50 participants, by the beginning of the program.

Evaluation/Conclusion: The evaluation of the program will rely heavily on the feedback of the participants. We already have a system in place through our software platform that will allow for participants to express how they feel about the program on a quarterly basis. We expect that many changes will be made for the first year, and these will primarily come from the concerns listed within these evaluations. Another metric that will be measured annually is the number of participants in the program. As previously mentioned, we hope to achieve a total of 50 participants for the first year, however, we wish to grow that number to 100 participants in year two, and finally 200 participants by the beginning of the third year.

Internship Abstract

Title: Fundraising Initiative for Client Database Management

Name: Juan Flores-Serrano

Preceptors: Dane Calcagni, Data and Event Logistics manager

Agency: SII Consulting, Hightstown, NJ

Purpose: To gather and evaluate donor data for client's 2020 general election donor outreach.

Significance: Fundraising is a foundational aspect of any campaign in order to operate. For SII Consulting, our client's fundraising portfolio needed an increase in donor contributions from donors in order to finance their advertisement and get out the vote outreach efforts, which include paying for campaign door literature, reaching out to volunteers to assist in phone banking and planning, and making event planning possible. Identifying donors is a key part to fundraising and especially in meeting our client's contribution goals.

Method/Approach: Between September 8th to September 15th, 9,490 potential donors were identified via data extracted from the Federal Elections Commission. We filtered the data in order to find likely donors, individuals who would contribute to campaigns in order for more Indian representation in congress. Of 9,490 donors we identified, 204 donors were labeled as prime donors based on occupation and location. The next step was finding contact information through AdvancedBackgroundChecks.com and xlek.com. After gathering data for over 200 possible donors, the office and the client used the data as part of their outreach efforts in making 200 weekly calls to donors from multiple databases. Calls started in July but ended in October.

Outcomes/Results: The creation of the database helped in S2 Consulting and the client's outreach efforts for donors. With thousands of phone calls made from July to October, the client raised over \$240,000. When the database was implemented in September, the client raised double the amount raised in the third quarter. Data shows the client ended with \$80,000 in total contributions by the end of September, but in the month leading up to the election the client raised \$160,000.

Evaluation/Conclusion: In evaluating the project, calls made from tailored databases were helpful in meeting the client's fundraising needs. Strategic call sessions were fueled by databases filled with habitual donors that share similar characteristics to the client, proving it to be a success. Measuring the rate of potential donors who said "Yes" to supporting the client per database could confirm to clients even more whether their ongoing outreach efforts are successful. It's possible that the biggest fundraising month could be attributed to the nature of political fundraising during the last month before an election. Maybe it would be a more accurate measurement of a client's successful outreach efforts if they were analyzed a year or 6 months before an election. Overall, the project was successful in building a fundraising portfolio for a client and meeting their fundraising goals in a short time period.

Internship Abstract

Title: Social Media Stigma Free Mental Health Campaign Assessment

Name: Johnathn Forcht

Preceptor: Direct Supervisor: Manuel Castaneda, Community Health Director

Agency: Live Well Vivir Bien New Brunswick - New Brunswick, NJ

Purpose: To incorporate mental health based social media posts tailored toward New Brunswick, NJ teenagers as part of the “Stigma Free” campaign and analyze engagement to facilitate reaching the goal of reducing the stigma and attitudes associated with mental health.

Significance: Encouraging teens to talk about mental health like a normal topic is a significant cornerstone to creating a healthier community. According to data collected in 2019, 26.4% of New Brunswick residents reported that someone in their household had a mental health condition. Having mental health problems can lead to developing chronic conditions. Focus groups in the study wanted awareness campaigns, and the needs assessment calls for education about stigma (regarding mental health) for the community. By creating the Stigma Free campaign, the two needs of the community are combined to tackle mental health. Analyzing the results based on social media will allow Live Well to gauge the campaign’s effectiveness and guide future planning. Increasing education and awareness about mental health, Live Well will be closer to its goal of creating a healthier community.

Method/Approach: Content surrounding mental health is an ongoing theme of Live Well social media platforms. In order to begin initiating and normalizing the conversation on mental health issues, content for the next 2 months will switch from traditional photos and videos to a mixture of ones more tailored to teenagers. This content will be sourced from role models and/or celebrities via social media posts or videos to grab their attention best and increase the likelihood of engaging in said posts. Posts will be measured against previous content to gauge the project’s efficacy.

Outcomes/Results: From September to October, there was an increase in reach (+64), impressions (+104), likes (+8), and shares (+16) on Instagram. In September, resiliency recorded the highest reach (344), impressions (460), and likes (34). Self-awareness recorded the least reach (268), impressions (306), and likes (26). In October, self-esteem recorded the highest reach (343), impressions (403), and likes (41). Self-awareness recorded the least reach and impressions (total: 574). Comments and shares were consistently low (net: 9 and 34). Videos recorded less reach (-30) and impressions (-81) than similar posts. From September to October, posts resulted in far less reach (-200) and impressions (-17) on Facebook. Total likes were about the same. Posts and videos on Facebook yielded similar engagements. Facebook’s September data recorded resiliency (12) as the most engaged themes.

Evaluation/Conclusion: Tailored content is showing a slight increase in engagement. Videos were implemented to increase engagement; however, data didn’t support this. Video length nor content was a significant factor. The issue with a low amount of comments, shares, and saves isn’t a large factor in the campaign’s overall goal; however, it displays a lack of connection with followers. Connecting followers through story polls and activities outside of social media will likely increase comment traffic. Using reach and impression for ranking the themes is critical as it is the most inclusive measure. Themes similar to previously successful ones would help the campaign and keep content fresh. Given the Instagram results, it is unlikely that Facebook content from October is less interesting than September’s and more so that less followers were online then. Research on content teens are more likely to gravitate towards is needed.

Internship Abstract

Title: Curriculum Module Redevelopment Project

Name: Ava Fornaro

Preceptors: Direct Supervisors: Donna Custard and Jennifer Stegers

Agency: New Jersey Chamber of Commerce Foundation (NJCC and NJCCF)

Purpose: To update the Jobs for America's Graduates (JAG) program curriculum for at risk middle school and high school students.

Significance: The NJCC has provided educational and mentorship services and programs to students since 1980. Overall, 500,000 students have benefitted from JAG since its inception. About 15-17% of the JAG students qualify for disability or special education services. This program provides guidance to help stop the cycle of poverty and provide instructions for life skills beyond the school setting. Those in JAG have a graduation rate of 92-100% and double of their peers. The students in this program are given direction, resources, skills, and hope. This project focused on updating the curriculum materials.

Method/Approach: Since August 24, 2020, there have been 4 interns working on the curriculum redevelopment project and two interns working on the social media platforms for the NJCC Foundation. Every week, a new phase of the process was explained over Zoom meetings. The first two weeks involved downloading the software, applications, and iCloud drive that were needed to complete the work. The phases included standardizing the slides, retyping information, researching new data, citing reliable sources, submitting content, obtaining permission for copyrighted pictures, and designing the layout of the presentations. The content focused on youth leadership and education, work, and career preparation. The updated content, new statistics and research, and recent photos and data tables were completed on November 11, 2020.

Outcomes/Results: Seven modules were completed between August 24, 2020 and November 11, 2020. Every module is an average of 200 slides after all the content is modified from each slide. Each module contains an average of 100 slides, most of which required an update to content. In addition, every slide has an average of three pictures or graphics, many of which required updating.

Evaluation/Conclusion: The effectiveness of this project will be evaluated based on the graduation rates of the students that use this updated curriculum. There was difficulty accessing and including enough pictures and graphics. Access was denied to the copyrighted images and there were limited images that were not allowed to be repeated. There are 12 month post graduation services provided for JAG graduates as a way to continue help into adulthood and track their progress. Feedback from the JAG specialists is another evaluation technique that directly pertains to the presentations modified by the interns. The curriculum needs to be updated every five years to match the relevance of the economy, job opportunities, educational options for high school graduates, and other changing decisions in early adulthood that the modules focus on.

Internship Abstract

Title: Suma Scripts Delivery
Name: Stephon Frasier
Preceptors: Director of Operations Eric Liu, Director of Finance Jodie-Ann Henry
Agency: Suma Scripts LLC, A Medication Delivery Platform.

Purpose: To create a network of partnerships with local pharmacies to help combat one of the health disparities of lack of access to medication within the United States, creating medication accessibility for all.

Significance: The Center for Disease and Control, CDC, in 2015–2016, stated that 45.8% of the U.S. population used one or more prescription drugs in the past 30 days. Prescription drug use increased with age, overall, and among males and females. Overall, 18.0% of children aged 0–11 years, 27.0% of adolescents aged 12–19, 46.7% of adults aged 20–59, and 85.0% of adults aged 60 and over used prescription drugs in the past 30 days. Prescription drug use was lower among males (41.5%) than females (50.0%), although the pattern differed by age. Among children aged 0–11 years, prescription drug use was higher among boys (22.0%) than girls (13.7%), while among adults aged 20–59, prescription drug use was lower among men (37.5%) than women (55.5%). There were no significant differences by sex observed among adolescents aged 12–19 or adults aged 60 and over. With this approach, over time this process will show patients' adherence to their medication treatment plan.

Method/Approach: The approach will be required to be built in stages as the completion of one phase is the only way to progress towards the next step for sustainable success and growth. The first stage is infrastructure; the partnerships with pharmacies within the communities give Suma Scripts an edge in the market. Customer loyalty combined with brand awareness Suma Script will provide patient comfort and security with its software and medication packaging.

Outcomes/Results: The results that will show in the data will be a wide range of data. Expect to see data such as how many prescriptions were made and sold via the delivery system, and over time things like patients adhering to their treatment plan. The network is being built and some new features were implemented to advance our agenda in creating accessible medications for all. The progress of a project of this magnitude will consist of a few different stages in order to truly be successful, it starts with data.

Evaluation/Conclusion: Transparency is vital in the healthcare industry; however HIPAA was implemented for situations such as this where it is difficult to track all the data due to laws and regulations. In order to protect Suma Scripts patients' information all drivers will need to submit their HIPAA certificate this will help pharmacies to cooperate with us. Suma will solely focus on the numbers within the data. The most commonly used types of prescription drugs included bronchodilators for children aged 0–11 years, central nervous system stimulants for adolescents aged 12–19, antidepressants for adults aged 20–59, and lipid-lowering drugs for adults aged 60 and over. Monitoring the use of prescription drugs may describe aspects of the health of the U.S. population. Differences in the most commonly used prescription drug types by age group illustrate differences in the prevalence of health conditions at various stages of life. In the future the data should show how patients are taking to the system. This will help to see more patients having access to more options when it comes to their medications. Simply have your physician submit a prescription on your behalf to your local pharmacy and within a short period of time have it delivered to your front door.

Internship Abstract

Title: Cannabis Decriminalization In New Jersey: Mass Incarceration and Restorative Justice

Name: Gillian Heintjes

Preceptors: Direct Supervisor: Heather Ogden, Advocacy Coordinator
Project Supervisor: Edward Martone, Policy Analyst

Agency: National Center for Advocacy and Recovery for Behavioral Health (NCAAR)

Purpose: To analytically research the effects cannabis decriminalization has on overall arrests, the racial disparities of arrest, and rates of crime.

Significance: New Jersey's legislature reports that of the 650,000 Americans arrested for cannabis-related offenses in 2017, 90% of these arrests were for possession. Most people are not dispensing cannabis to a large consumer base; rather, they are using cannabis for personal use. Furthermore, Black and Latinx people are disproportionately represented in drug-related arrests, composing 47% of those arrests while representing only 31.5% of the population. This evidence indicates that criminalizing the use of cannabis has only put pressure on the carceral system to house thousands of people--it redistributes the responsibility of protecting vulnerable communities from legislative bodies to our carceral system. Decriminalization of small amounts of marijuana in other U.S. states has been shown to decrease arrests, close the racial gap of arrests, and has no correlation to rates of crime.

Method/Approach: This project was completed through analytical research on cities and states that have implemented decriminalization, focusing on Massachusetts, Vermont, District of Columbia, Colorado, and Philadelphia. Works for this study were found through vetted sources. The International Journal of Drug Policy, Nguyen K et al., and Shana L. Maie et al. all offered viable evidence that supported the positive effects of decriminalizing cannabis. Lastly, an analysis was made based on the collected evidence as to what the best recommendation would be for New Jersey regarding its criminalization of marijuana.

Outcomes/Results: Three articles were found pertaining to decriminalization of cannabis in other U.S. states. The International Journal of Drug Policy reports that in 2007, before Massachusetts and Vermont implemented decriminalization, Whites. Lastly, a study based on the Uniform Crime Report shows in Washington and Colorado, after decriminalization of marijuana, there is no correlation between decriminalization of marijuana and crime rates.

Evaluation/Conclusion: From the evidence available through researching published scholarly articles, it can be concluded that decriminalizing possessing small amounts of marijuana benefits the carceral system, implements a strategy of restorative justice, and does not encourage people to engage in illegal behaviors simply because of decriminalization. Implementation of decriminalization has been proven to be effective in decreasing overall arrests and decreasing arrests of people of color. Intermittent long-term research will ensue to track the effects of decriminalization in these specified areas.

Internship Abstract

Title: Physicians utilizing the tools and programs at Medistics Health to optimize practice revenue

Name: Karina Homentowska

Preceptors: Robert Caproni & Gunj Patel - Chief Operating Officer

Agency: Medistics Health

Purpose: To analyze different CPT codes (Current Procedural Terminology) and Medicare programs to optimize monetary growth per patient for the practice.

Significance: CPT codes are “descriptive terminology and associated code numbers provide the most widely accepted medical nomenclature used to report medical procedures and services for processing claims, conducting research, evaluating healthcare utilization, and developing medical guidelines and other forms of healthcare documentation.”(Dotson) Physicians and specialized doctors face a burden of seeing patients and performing care as well as performing tasks such as documentation, billing, and reimbursement. By bundling and understanding CPT codes and the new regulations that Medicare Programs have each year, plan on seeking trends to better optimize practices.

Method/Approach: The tasks at hand would include: researching CPT codes, researching nuances of each program such as Chronic Care Management, seeking ways to exponentially grow profit through allocating patient care to specific positions (Health Coach can handle xyz codes). The team is building out a canvas of information for the operations team as well as connecting trends to better amplify Dr. Shah’s approach. Each Medicare program has specific CPT codes, for instance, Chronic Care Manager has 4 CPT codes: 99490, which is a “20-minute timed service provided by clinical staff to coordinate care across providers and support patient accountability.”

Outcomes/Results: Utilizing excel to watch trends with the CPT reports the past month, has provided the team with verifiable data where the CPT codes have not been utilized based on specificities of Medicare Programs. The excel reporting structure and back end implementation of Salesforce reporting has provided the team with a visual trend setter, in return saving CPT coding issues by 22.6%. The results from outreach calls, CPT structuring/knowledge, has provided the team with a better business plan and helped with hiring needs. For instance, nurse practitioners or a health coach can handle higher-level CPT codes, which yields a higher revenue than the CPT code that is of the same descriptor but different communication structure.

Evaluation/Conclusion: From the research collected, the team was able to find discrepancies in the quantitative CPT codes that enabled the care management team to better communicate with respective patients and healthcare practitioners. By better seeing trends in the CPT codes, for instance, the company was able to see the communication and comprehension issues presented with client outreach, following protocol with the descriptors for the CPT codes, and can see the range of growth monetarily.

Internship Abstract

Title: Zoonotic Reportable Diseases Monitoring Program

Name: Michael Horzepa

Preceptors: Dr. Lawrence Weiner, Owner & Head Doctor

Agency: Town & Country Veterinary Surgical Clinic

Purpose: To monitor and convey data on zoonotic reportable diseases in New Jersey, with a focus on Monmouth County, for the purpose of creating a more informed veterinary practice with an increased understanding of the disease landscape surrounding them.

Significance: Each year thousands of reportable, zoonotic disease cases occur in the state of New Jersey (Kahn, 2006). These diseases pose a threat to those with compromised immune systems. For example, the human lymphocytic choriomeningitis virus is transmitted from rodents people keep as pets. Not only the pet owner would be susceptible to getting the virus if they donate an organ the recipient could die. On a per practice basis, the monitoring and understanding of these diseases in the local environment will lead to more educated diagnoses.

Method/Approach: First, data on reportable diseases in Monmouth County will be collected from the New Jersey state health assessment data website (Health, 2018). Next, trends of the passing years are examined to find any uptick in previously insignificant diseases. The major diseases in Monmouth County can be learned and combatted. Since the most recent data for these reportable diseases is the year 2018, the reading of notices sent out to local doctors is a great resource for the current climate, allowing those involved in the field to stay informed and not lag two years behind.

Outcomes/Results: There were a total of 4,170 reportable diseases tracked by the NJSHAD in 2018. All diseases that have animal vectors/hosts are present and accounted for. Lyme disease is the most prevalent of zoonotic diseases, accounting for 506 (12.1%) of all reported diseases (Health, 2018). Campylobacteriosis (fever, vomiting, severe diarrhea) shows up 105 (2.5%) times. Monmouth comes in third of all NJ counties for the amount of zoonotic reportable disease in 2018, third to Essex and Bergen county. Due to their environment which consists of abundant woods and wetlands, the perfect environment for vectors (ticks, mosquitoes, etc.). For an accurate representation, the practice will look at the most popular zoonotic disease. Hunterdon, Sussex, and Warren County have the three highest rates of Lyme disease per 1,000 people (Petronio, 2018).

Evaluation/Conclusion: Lyme disease is the biggest issue for Town & Country, with 506 cases in 2018. But intestinal infections (eg: Campylobacteriosis), or viral infections (eg: Rabies) must be accounted for. The practice has agreed to put more emphasis on the Lyme disease vaccine when talking to owners, especially those from counties with higher than normal infection rates per 1000. Unlike the Rabies vaccine, Lyme vaccination is not required by law so it is up to the doctor's preference on whether to give it or not. There's already uniform insistence for Lyme testing as it is cheap and easy to detect. Fecal samples will also be tested more often, as they detect bacterial infections which are the second most prevalent set of diseases after Lyme (CDC, 2019).

Internship Abstract

Title: TOOTH HERO- children's dental app

Name: Amanda Jaber

Preceptors: Ashish Deshpande

Agency: Brilliant Smiles of North Plainfield

Purpose: Encourage children to brush their teeth while making it a fun and an educational experience.

Significance: At the office, we have about five emergencies a day, just children alone with tooth aches. Many families are unaware of the appropriate measures to take to keep their children from having gingivitis. On the other hand, some families do not have the financial requirements to take their children to the dentist when needed. Therefore, by creating an educational app for children, they can take precautionary measures at an early stage with their parent's help to access the app. I want to educate parents on the "TOOTH-HERO" app to give them free access to virtual check-ins via online chat with a dental assistant to help with maneuvering around the app, discussing all its features, and basic questions/concerns that parents may think they have about their children's dental hygiene. There will also be a tab for parents where they can search up their dentist and make an appointment through there. The Tooth Hero app will be available in four different languages: English, Spanish, French and Arabic.

Method/Approach: I recommended "TOOTH-HERO" because it would be supported through Eaglesoft.. Eaglesoft contains CAESY Cloud which is a patient educational tool that can be accessed with an internet connection. CAESY Cloud has information on hygiene to restorative, esthetics to periodontal disease so patients can quickly understand their treatment options and make an informed decision. Therefore, TOOTH-HERO is similar in that aspect and that is why it would be supported through Eaglesoft. Thirty anonymous dental care surveys were handed out at the practice between 11/30/2020 and 12/07/2020 that asked parents about, "their child's dental health, last visit, insurance coverage, and any difficulties that prevent parents from seeing the dentist as often". Another 30 surveys were handed out that asked patients "what their thought was about the app". Most importantly if the patients would download and use the app.

Outcomes/Results: Twenty-four out of the thirty responded "poor" to the health of their child's gums, ten patients responded "language" as a difficulty from seeing the dentist office as often, fourteen responded "1-2 years" as their child's last visit, twelve responded "no" to dental insurance. For my second survey, twenty-seven out of thirty patients answered "yes" to downloading the app for their child.

Evaluation/Conclusion: Patients were overall satisfied with Tooth Hero. I received some positive feedback. Currently there is no App that focuses on early childhood habits about dental hygiene created by our office. This will be a game changer and would be a GO TO app for parents to not only educate themselves but also get children to adopt teeth cleaning best practices in early life. Also, this will allow children to enjoy brushing their teeth while they are being entertained and learning at the same time. It is the same concept as if the children were learning their alphabets, numbers, colors, etc.

Internship Abstract

Title: Regionalization and Coordination of Pediatric Care in RWJBarnabas Health

Name: Christopher Jenkins

Preceptors: Warren Moore, CEO Children's Specialized Hospital & VP Pediatrics Service Line & Kelly Keefe Marcoux, VP Pediatrics

Agency: Children's Specialized Hospital

Purpose: To improve the level of care for the Pediatrics service line by regionalizing specific inpatient pediatric services.

Significance: The care of critically ill children has become more complex and demanding. The management of critical illness and injury in pediatric patients requires specialized training and experience. In areas where specialized pediatric emergency and critical care are not available, the outcome of pediatric critical illness and injury is adversely affected. The consolidation of care for children into the emergency medical services system or creating a specialized medical care service for the pediatrics service line is crucial. Updates and revisions into pediatric critical care, transport, and emergency medicine must be made to improve quality and patient safety in pediatrics. It is shown that the mortality of pediatric patients with respiratory failure or head injury is lower in hospitals that provide tertiary-level pediatric intensive care than in those that do not. American Academy of Pediatrics, (2019)

Method/Approach: In order to be optimize regionalization for care in the hospital, the pediatric service line would have restrictions and criteria for each hospital contingent on their function:

- Provide an overview of current pediatric services within RWJBH (MMC, NBI, BMSCH, SBMC, JCMC, CMMC, RWJ-S, and CMC) to create a focus and explanation for resolution.
- Discuss immediate consolidation that occurred due to COVID and then was maintained – closure of pediatric inpatient units at CMC and CMMC to further build the whole pediatric care model.
- Analysis of duplicate services across system to assess partnerships and optimizing resources as appropriate:

Outcomes/Results:

- PICU coverage proposal between BMSCH and MMC- consolidation of services
- Expansion of transport program – increase in transports from solely outside of BMSCH- retention of patients
 - Decreases seepage within RWJBH
 - Establish Tele-med at:
 - CMC
 - MMC-N and MMC-S (pending final contract approval)
 - CMC renewed contract
 - NBI to provide ED Tele-med to CMMC; discussions in process

Evaluation/Conclusion:

These initiatives will open access and assist in the management of critically ill and injured patients in pediatrics. The initiatives fill the gaps where specialized pediatric emergency and critical care are not filled and the outcome of pediatrics quality increases. These gaps are filled with specialty and concentrated care as a result of regionalization.

Internship Abstract

Title: The Cooperative Market's Customer Satisfaction Survey Report

Name: Andrea Johnston

Preceptors: Emilio Panasci, Executive Director

Agency: Urban Agriculture Cooperative

Purpose: To evaluate program success through analyzing survey results for The Cooperative Market, Urban Agriculture Cooperative's online market, with the goal of better serving the community.

Significance: Urban Agriculture Cooperative works to combat food insecurity in the city of Newark, a food-deserted, low-income community, by providing affordable fresh fruits and vegetables through a partnership with local farmers and gardeners. There have been a significant amount of orders through The Cooperative Market in the past six months, with 76% of orders placed by returning customers. Customer feedback on ways to improve will be helpful for the long-term success of the organization.

Method/Approach: A customer satisfaction survey was distributed to all clients that had ordered from The Cooperative Market in the previous six months. The survey was written in English and Spanish and only consisted of ten questions in order to increase the response rate. It consisted of five multiple choice and five short answer questions. Once the survey was written and reviewed, it was emailed to the customers. Using Google Forms, customers were asked a series of questions including their overall satisfaction with products they ordered, overall satisfaction with the online market experience, how they heard about the online market, which pickup location was most convenient for them, and how COVID-19 affected their ability to order from the online market. An incentive for completing the survey was a \$5 credit towards their next order on The Cooperative Market website.

Outcomes/Results: Of the total number of clients who placed orders in the past six months, 15 customers completed the survey. 14 surveys were completed in English and 1 survey was completed in Spanish. When asked how many times they had ordered from The Cooperative Market in the past six months, 13 customers (87%) selected 1-5 times, and 2 customers (13%) selected 6-10 times. When asked how satisfied they were with the products they ordered, 14 customers (93%) selected very satisfied, and 1 customer (7%) selected satisfied. When asked how satisfied they were with The Cooperative Market online ordering, 11 customers (73%) selected very satisfied, and 4 customers (27%) selected satisfied. Only 1 customer said that COVID-19 has affected their ability to order online, although many customers stated that they would be willing to pay a \$5 delivery fee for contactless home delivery. When asked what customers liked about the online ordering system and products, many customers responded that they enjoyed the variety of products and convenience. Suggestions to improve included having an even larger variety of produce and introducing reusable packaging.

Evaluation/Conclusion: The majority of customers were very satisfied with the products they ordered from The Cooperative Market and with the online ordering system. The responses will be used to improve the website and several new initiatives will begin including providing contactless home delivery, looking into reusable packaging, and increasing the variety of products offered. A limitation of the survey was that the response rate was low, which likely occurred as a result of the email going to spam folders. Additional emails will be sent to increase the survey response rate, as it will continue to be a useful tool for Urban Agriculture Cooperative to ensure customer satisfaction in the future.

Internship Abstract

Title: RWJ Safety Ambassador Program: Planning for a Virtual Safety Summit

Name: Chanpreet Kaur

Preceptors: Direct Supervisor: Diana Starace, Injury Prevention Program Coordinator
Project Supervisor: Allison Mosier, Safety Ambassador Program Coordinator

Agency: Robert Wood Johnson University Hospital - Trauma and Injury Prevention Department

Purpose: To design and implement a virtual program that will engage and educate 11th and 12th graders about injury risks, prevention strategies, and presentation skills.

Significance: According to Safe Kids Worldwide, 8,000 families in the U.S. lose a child every year due to a preventable injury. The Safety Ambassador Program at Robert Wood Johnson University Hospital works to prevent unintentional injuries and keep kids safe on the road, at home, and at play by linking 11th and 12th-grader students (i.e. Safety Ambassadors) with 1st and 2nd-grade students in Central Jersey. The Safety Ambassadors provide educational presentations discussing injury prevention to the 1st and 2nd graders in an effort to increase safe behaviors and decrease childhood injuries. Before interacting with the 1st and 2nd-grade students, the Safety Ambassadors participate in a Safety Summit - a training event where they will learn and gain an understanding of injury risks, prevention strategies, and presentation skills. However, due to Covid-19 restrictions, the Safety Summit will be conducted on a virtual platform. This project involves the design and implementation of a virtual Safety Summit to ensure that the Safety Ambassadors can continue to acquire the knowledge, understanding, and skills necessary to prevent unintentional injuries and provide educational presentations, especially on an online platform.

Method/Approach: In preparation for the Safety Summit, a digital prop kit was created focusing on the four key topics of fall prevention, pedestrian safety, wheeled sports, and safety in and around cars. Data from RWJ's pediatric emergency department demonstrates that these four areas make up the highest concentration of injuries in young children seen in the hospital emergency room. The digital prop kit incorporated graphics and key safety messages highlighting safe behaviors in children. PowerPoint presentations were also created for each safety topic that included graphics from the prop kit as well as corresponding text to explain the behaviors depicted in the images. Research was conducted to identify evidence-based practices proven to engage students in online learning. Pre- and post-program surveys were also created using Google Forms which will be used at the beginning and end of the Safety Summit.

Outcomes/Results: A total of 9 high schools with over 100 Safety Ambassadors will participate in the first virtual Safety Summit on December 2nd, 2020. The PowerPoint decks that were created will be used to educate and empower the Safety Ambassadors about childhood injury risks and prevention strategies. The evidence-based findings of engaging students in online learning will be incorporated in the virtual Safety Summit such as creating breakout rooms in Zoom to encourage collaboration among students. The PowerPoint decks and the digital prop kit will also serve as resources for the Safety Ambassadors in helping them develop their own educational presentations to deliver to the elementary school students.

Evaluation/Conclusion: Pre-and post-program surveys will be administered via Google Forms to measure high school student knowledge acquisition and the effectiveness of the Safety Summit. Presentation evaluations will be conducted for each elementary school presentation in Spring 2021. The survey results and presentation evaluations will also be used to assess the effectiveness of the teaching method used for the Safety Summit.

Internship Abstract

Title: Coping with COVID-19 pandemic in workplace

Name: Jasmeet Kaur

Preceptors: Prital Patel- Microbiology Supervisor

Agency: Aculabs Inc- East Brunswick, NJ

Purpose: To analyze the pandemic impact on healthcare employees and to provide effective methods to cope with it.

Significance: Coronavirus has impacted the entire world since January 2020. It has changed the way we live, interact, communicate, and work. Healthcare workers are at a higher risk of getting the virus due to excessive COVID-19 exposure. This constant risk causes fear, stress, and is physically and mentally draining. Phlebotomists are visiting multiple nursing homes and are constantly exposed to the geriatric population and other healthcare workers who have been exposed to the virus. Individuals that are working inside the lab are labeling and handling samples that are being tested for COVID, increasing their risk of contracting the virus.

Method/Approach: A survey was conducted within the facility to determine how employees felt about the SARS-CoV-2 virus and how they were coping with it, whether they were at work or at home. Using survey monkey, a survey tool, 6 questions were asked in relation to the overall pandemic and the workplace. The survey first consisted of Job Title and Department working, allowing the data to be grouped together. The four following questions were Likert scale questions, based on a scale of 1-10. The questions included: 1) How stressed have you been at your workplace due to the pandemic? 2) How effectively do you think you have been coping with the pandemic stress at work? 3) How effectively do you think you have been dealing with stress at home? 4) How often do you find yourself scared to come to work? The following open-ended question was based on personal opinions: 5) What are some ways this workplace can relieve your stress?

Outcomes/Results: This survey was distributed to employees within the facility using email and text messages. A total of 40 employees responded to the survey cumulatively on the two platforms. Out of the 40 responses received, the average number that the employees placed for the first question: "How stressed have you been at your workplace due to the pandemic?" was 8. The second question, "How effectively do you think you have been coping with the pandemic stress at work?" the average rating was a 6. The third question, "How effectively do you think you have been dealing with stress at home?" most employees rated it at 3. The last Likert scale question, "How often do you find yourself scared to come to work?" the average rating was a 9. In the open-ended question, 18 out of 40 individuals said that the implementation of weekly motivational emails and texts will give them hope and motivation.

Evaluation/Conclusion: Based on survey results that were received, it is evident that the stress level due to this pandemic is high. A proposal is being made to decrease the amount of stress within the workplace. A proposal for sending out motivational emails and texts will be initiated. Other effective methods to decrease their stress while at work is increasing the break time, creating a motivational board, and having group activities. A presentation will be presented to the facility's administration and supervisors on how to reduce the stress caused by this pandemic amongst employees in the workplace. The presentation will consist of the survey results and effective methods to cope with the stress level.

Internship Abstract

Title: Mental Health Resources for Low income and Homeless Population Assessment

Name: Alina Khan

Preceptors: Dr. Minhaj Siddiqi, Physician (Psychiatry) and Supervisor

Agency: Genessee Street Medical Health Services- Utica NY

Purpose: To assess the accessibility of mental health resources for low income and homeless populations and propose educational tools and access for vulnerable populations in Utica, NY.

Significance: There is a significantly higher rate of crime and low income/homeless populations surrounding Utica, NY. Based on statistics from the neighborhood scout where the crime index is 8 out of 100 which compared to its neighbor town of New Hartford where the crime index is 15 out of 100. Furthermore, drug and alcohol abuse is prominent in the area and due to COVID-19, homeless shelters and nonprofit organizations have been facing challenges with providing the bare necessities for families due to insufficient funding. Based on the increase in alcohol/drug abuse, job loss, and isolation, many people are experiencing instability in their mental health such as depression, anxiety, insomnia, lack of support etc. Vulnerable populations are suffering the most from this pandemic since they might not have the ability to access therapy, social support, and face financial instability. In order to help the community, it's necessary to assess what mental health resources they have.

Method/Approach: The project will be conducted via collaborating with community leaders on access to mental health resources in the area. A survey will be conducted that can assess the low income population's opinion on access to mental health resources and the financial, personal and emotional hardships faced during COVID-19. The assessment includes social support resources, coping mechanisms and de-isolation techniques and how to find help. Resources can include pamphlets with necessary information regarding mental health, a hotline for low income populations, posters that are health literacy appropriate in multiple languages as Utica has a large Bosnian, Russian, and Somalian population along with other minority groups. Also, setting up these resources at local hospitals and clinics.

Outcomes/Results: The amount of resources that were allotted from nonprofit organizations for vulnerable populations showed that the city was aware of the lack of resources vulnerable populations but with the influx of need the community is facing funding and housing challenges. The accessibility for food pantries such as the Rescue Mission of Utica, housing/rental assistance programs and financial compensation is present but mental health does not seem to be a priority in the community. The collaboration of mental healthcare professionals with community organizations can help bridge the gap by providing their professional expertise and resources such as pamphlets, hotlines, subsidized or free sessions and mental health campaigns. The survey will be conducted in January of 2021.

Evaluation/Conclusion: COVID-19 has brought upon many challenges for vulnerable populations specifically. As cases continue to rise and low income populations face the brunt of the global pandemic. COVID-19 has shown the importance of mental health with isolation, lack of social support, depression and other stresses that have come along with the pandemic. Due to the pandemic mental health will become an asset that more communities will be investing in because of the power it has shown.

Internship Abstract

Title: Online Workforce Development Curriculum Module Fact-checking and Updating for Teens

Name: Aleksandra Krajewski

Preceptors: Donna Custard, President

Agency: New Jersey Chamber of Commerce Foundation - Trenton NJ

Purpose: To address important workforce development issues with young adults (14-18) such as financial literacy, post-secondary education and rigorous curriculum.

Significance: According to the New Jersey Department of Education, the 2019 cohort four-year graduation rate was 90.6% across the state (NJ GOV, 2019). Increasing this statistic is of utmost importance because graduating from high school and seeking further education provides greater opportunities and future success. It is crucial to target young adults, especially opportunity youth, who have fewer advantages, privileges, and opportunities than most peers their age do. Providing resources that give students equal opportunities to succeed in life is essential. The sources that will be provided to them can help get and keep jobs, earn credentials, and make other important life decisions.

Method/Approach: The New Jersey Chamber of Commerce Foundation (NJCCF) has a total of 31 copyrighted modules under the “Jobs for America’s Graduates Program”. However, these modules are outdated due to the information on many modules not being revised for a couple of years. Through the use of PowerPoint and reliable sources such as USA GOV, research has been ongoing so that the information can be updated, replaced, and properly cited. The information being provided to the students via PowerPoint in school must be properly formatted, researched, and updated. Another step of the process is to ensure that the modules are engaging to the students. Engagement is considered by consistently formatting the modules in the same manner and using various graphics to display diversity and inclusion. By developing these modules, young adults will be provided with resources to become better prepared for employment, college, and life post-graduation.

Outcomes/Results: Following the conclusion of this project, nine modules will be completed and shared with high school students. An average of 100 slides per module were modified during this time period. The modules will be evidence-based, updated, and include graphics that are visually appealing and appropriate. The modules will help high school students understand the importance of education, whether that be through college education, earning credentials, or employment. These modules will also provide students with the necessary information to be financially stable and make more informed decisions with their money.

Evaluation/Conclusion: To evaluate the impact of this project, it would be beneficial to survey the different paths students took after completing the modules. By assessing the number of students who went to college or employment, it would give the idea of where the modules should be geared towards in the future. However, due to the COVID-19 pandemic, assessing results via surveys is problematic. These modules, once finalized and approved, will be stored in the NJCCF cloud drive and shared with hundreds of high school students across the state of New Jersey.

Internship Abstract

Title: Labor Council - Wisconsin Democrats Strategic Partnership
Name: Matthew Kruse
Preceptors: Direct & Project Supervisor: Alex McTaggart, Field Organizer
Agency: Democratic Party of Wisconsin

Purpose: To synergize year-round political organizing efforts between labor unions in southern Wisconsin and the state's Democratic Party to help increase electoral outcomes for Democrats.

Significance: Since Barack Obama's 2008 landslide victory in Wisconsin, the prominent swing-state has increasingly trended Republican in subsequent presidential elections. Successful strategic organizing efforts in other swing-states, such as Nevada, have been driven primarily by sustained outreach to key demographics that have become highly influential within a given state's electorate. In the case of Wisconsin, labor union members, many of which are based in agricultural and industrial sectors that have been adversely affected by President Trump's trade tariffs, have become crucial swing-voters that are more likely to vote Democrat if engaged properly. Relationship-building between union leaders who have intimate knowledge of Wisconsin's union landscape and field organizers who are experienced with voter outreach will significantly improve electoral outcomes.

Method/Approach: A review of the region's labor unions was conducted by the organizing fellow to attempt to identify a history of political organizing, previous political affiliations or candidate endorsements, and issues of concern to the given union and how those issues relate to the Democratic Party platform. This was followed by an outreach campaign in which the fellow contacted previously identified union board members outlining the goals and potential outcomes of this project. Through this, the organizing fellow was able to host weekly meetings between what became a council of labor unions and the regional field organizing team.

Outcomes/Results: This project contributes to the overarching goals of the Democratic Party of Wisconsin in a number of ways. Because community organizing thrives upon the exponential growth of those involved in carrying out a particular organization's mission, integrating politically friendly labor unions into the region's organizing efforts greatly expands the organization's overall reach into the electorate. This is compounded by the level of influence that labor unions possess in southern Wisconsin. With this, union members can more effectively address the concerns of members of their communities than political organizers who may be perceived as attempting to form a faux, transactional relationship with voters.

Evaluation/Conclusion: The effectiveness of this project can be evaluated by electoral outcomes in primaries and general elections, as well as how often the state party and unions continue to meet to strategize for upcoming elections. Because political organizing is a continuous effort, the level of engagement between groups should be reevaluated every six months.

Internship Abstract

Title: Educational Awareness Off-Campus Bathroom Campaign
Name: Amy Lauria
Preceptors: Marjolein Zijdel, Project Coordinator and Loren Linscott, Director
Agency: Rutgers Office of Violence Prevention and Victim Assistance

Purpose: To analyze the Rutgers Campus Climate Survey to create prevention methods against sexual violence within the college community while students are out drinking, specifically focusing on men as perpetrators and women as victims.

Significance: According to the 2018 Rutgers Campus Climate Survey Assessment, men are more likely to be the perpetrators of sexual violence. In fact, 88% of the perpetrators happened to be men. The gender study revealed that 68% of women experienced sexual violence, while only 31% of men did. Thirty-nine percent of sexual violence involved the use of drugs or alcohol. The study also found that often a perpetrator of sexual violence will use drugs or alcohol to make the victim more vulnerable. The numbers of these incidents are staggering and need to be brought to student's attention, especially in an environment where sexual violence is more likely to occur. Displaying educational awareness posters on the matter in heavily frequented off-campus bars while also providing resources will hopefully prevent more incidents like this from happening while also informing students on the issue

Method/Approach: The Off-Campus Bathroom Campaign was conducted based on the results of the 2018 Rutgers Campus Climate Survey Assessment. The sexual violence campaign poster being displayed off-campus is centered upon two main focuses. Based on the data collected on sexual violence and gender, and women resulting in 68% as the victims, the idea of creating a visual poster exemplifying this and being hung in specifically women's restrooms was produced. The data also showed that 39% of sexual violence incidents involve drug or alcohol use. This statistic was the deciding factor of where the poster will be displayed, which is off-campus college bars that are heavily frequented by students. After making these decisions, the next step was to create an informative yet eye-catching poster that captured the intended audience.

Outcomes/Results: As students and victims came in contact with the poster, calls to the RUVVVA hotline increased. The intended audience was able to gain access to resources and confidential support. With this knowledge they could also help their friends or family members who have also found themselves struggling with the same issues yet are too afraid or embarrassed to reach out to a professional for help.

Evaluation/Conclusion: In order to determine the successes of the project the activity of students accessing the support services and calling the hotline during the campaign will be recorded and compared to the activity before the campaign was launched. These numbers will be looked at specifically on weekends and days right after them due to the campaign setting being off-campus bars, which are heavily frequented on the weekends. The activity will be monitored on a weekly basis and will stop once the semester ends.

Internship Abstract

Title: Designing and Fabricating a Microfluidics Device With a Flow Rate Regulator

Name: Katie (Yerim) Lee

Preceptors: Direct Supervisor: Dong Hyun Han M.S.
Project Supervisor: Je Kyun Park Ph.D.

Agency: NanoBio Laboratory, Department of Bio and Brain Engineering, KAIST,
Republic of Korea

Purpose: To design and fabricate a finger actuated microfluidics device with a flow rate regulator to increase precision and control in function.

Significance: Finger actuation microfluidics devices are an alternative to bulky, intensive, technique requiring machines when it comes to point of care testing (*Lab Chip*, 2020,20, 1191-1203). Microfluidics technology offers advantages for sample preparation and analytical testing in resource-limited settings. This user-friendly device without an external pumping system allows for wider use in preventing foodborne diseases, infectious diseases, and to monitor health-related biomarkers (*Lab Chip*, 2020,20, 1191-1203). To make detailed and essential improvements in these devices and systems, the research is working to create a novel method to control the rate of flow using a finger actuated regulator in the hope to increase the stability of results, precision, and control of media resulting in less damage and loss.

Method/Approach: A novel finger-actuated microfluidic device was designed through a computer program, AutoCAD. The device was designed with the purpose of testing the efficiency of the flow rate regulator and its impact on the size of the oil droplets being formed. Once the wafer of the device is designed and the mold is made, the fabrication of the device is initiated with PDMS (a polymer widely used for the fabrication of microfluidic devices). Experimentation and data collection begins once the device is complete.

Outcomes/Results: Oil droplets were observed under the microscope, and captures were taken using the eXcope program. The size of the oil droplets from the still cuts were then measured using the ImageJ program. For each device, (with and without flow rate regulators) samples were collected from five frames, and 30 droplets from each frame. The droplet sizes were measured by area with ImageJ. The data was then moved to excel, where the diameter of all collected droplet sizes were calculated and compared. The average diameter of the droplets formed without a regulator was 164.87 μm . The average diameter of the droplets formed with a flow rate regulator was 156.39 μm .

Evaluation/Conclusion: A relationship between flow rate and oil droplet sizes were observed from past devices. Following the relationship, oil droplet sizes will be compared from a device without a flow rate regulator and with a regulator. Anticipated results are that if the flow rate decreases with a functioning flow rate regulator, the oil droplet sizes will increase. Data and results from the most recent device shows that the effect of the flow rate regulator was minimal to ineffective. It is thought that the pressure was too high within the device. To improve the current flow rate, a new device will be designed with a new pneumatic channel design. In the new device, water will be used as a pressure damper in the pneumatic channel instead of air. It is hypothesized that the additional decrease in pressure will result in a decrease in flow rate ($Q=(P+\Delta P)/(R+\Delta R)$). If there is a significant difference in the droplet sizes between the device with and without the regulators, that would mean that the flow rate regulator is functional. Positive results would provide a platform for further applications.

Internship Abstract

Title: Safe Return to Work and Building Re-entry Solution

Name: Alexandra LeLand

Preceptors: Helder Mendes, Advanced Practice Nurse

Agency: PSEG Medical Department

Purpose: To implement a safe return to work strategy and allow PSEG employees to enter their building.

Significance: COVID-19 has drastically changed the United States over the last seven months. In the United States, there have been over 7 million cases, with over 200,000 deaths (CDC 2021). In New Jersey specially, where PSEG is headquartered, there have been 200,000 cases and 16,000 deaths (NJ DOH 2021). Since March, PSEG has not allowed any of their employees to be on site or in their buildings. COVID-19 is extremely transmissible, especially indoors which is why it is crucial to create a safe and comprehensive plan for employees to return to work. The goal is to return the employees without increasing the number of existing COVID-19 cases in the PSEG community by using a daily symptom screening platform, and badging system for building access.

Method/Approach: The solution for a safe return to work strategy was the Virgin Pulse Passport, a symptom screening application created by vendor Virgin Pulse, that can be accessed on a smartphone, or the internet. This application presents users with a green, yellow, or red badge at the end of the questionnaire that indicates whether the employee can return to work and enter the building. The questionnaire includes questions about how the employee is feeling, if they are experiencing any symptoms, whether or not they have been exposed or close contact with someone with COVID-19, if and where they have traveled. Managers of every unit also have access to a company wide dashboard through the passport. The dashboard displays trends and which employees were not able to come to work due to getting a bad badge color. Additionally, an administrative inbox was created for any questions or concerns that employees had while using the passport. This inbox was monitored every work day and was required to answer questions within 24 hours of receiving it.

Outcomes/Results: The application launched October 1st, 2020, and has been in use ever since. The organization's goal was to have as many people use the application as possible; however, they could not make it a requirement because not everyone had a smartphone. About 75% of all employees used the passport application, including those working from home. About 30% of all badges presented were yellow and red, which was much higher than expected. Out of this 30%, only 10% of these employees were actually required to stay at home and not enter the building due to possible exposure or symptoms. In order to decrease this error, the questions were altered to be more specific. As a result, the error percentage decreased by almost half and produced much more accurate responses.

Evaluation/Conclusion: Through surveys, unit and department managers stated that the passport was the best solution for returning to work strategy and assisting them in keeping track of their employees and their status. Additionally, senior management concluded that the dashboard helps keep track of the organization's overall numbers. It was found that the timing for the passport has been very good in that the number of cases in New Jersey is currently rising, and they expect to see an increase in their employees' numbers as well.

Internship Abstract

Title: ED Process Improvement Project to Increase Revenue Cycle KPI Scores

Name: Ryan Louie

Preceptors: Mary Kelso, Director of Access Management

Agency: Robert Wood Johnson University Hospital

Purpose: To eliminate the major source of Emergency Department (ED) claim denials by analyzing Key Performance Indicator (KPI) report data and auditing the process to identify front end revenue cycle opportunities.

Significance: Insurance companies often deny claims involving the use of emergency room services for a variety of reasons such as errors in registration and coding. Aetna was forced to pay a \$500,000 fine for denying 93% of ED claims deemed valid (Waddill). RWJUH's Emergency Department has experienced claim denials/rejections usually regarding eligibility issues, causing the hospital to lose revenue. Using a tool called Experian to run eligibility, shortcomings in the process can lead to a high level of denials/rejections. Rejections are accounts that require re-work and delay cash being received from the insurance companies. Performing observational audits on the processes and drilling down data to pinpoint the lowest-performing areas should lead to process improvement efforts so that denials/rejections become preventable, and KPI scores meet regional goals.

Method/Approach: The methods used to identify revenue cycle weak points include observational audits on the revenue cycle process and the drilling and analysis of two KPI datasets. Beginning with the observational audits, three registrars working two different shifts and with varying amounts of experience since being hired were shadowed under the guise of a registration intern. The auditor was not given any background on what to expect, only instruction to document every detail and step of the process exactly as each registrar performs it. This lack of background ensured the auditor was completely unbiased and thorough in their reports. The report was submitted to management, which identified deviations from standard registration protocol. Management selected which two KPIs were affected the most by these deviations and the corresponding data was drilled and analyzed to find trends considered in the final plan.

Outcomes/Results: A cause and effect relationship was determined to exist between the observed registration process deviations and both rejection and insurance plan code change (IPCC) volume, leading to the need for review and analysis on data from these two KPIs spanning 8 weeks from August to October. The final report to management will identify key payors, key eligibility issues, day of week and time of day that errors most frequently occur, and if necessary, the ten lowest-performing staff members. A new staff training program involving standardization of training and competency assessments will be designed and implemented as a result.

Evaluation/Conclusion: Due to the limited amount of time spent at this internship, the implementation of the final product, a new staff training program that addresses the sources of rejections and IPCCs, will likely be done after the conclusion of the internship. The department has set benchmarks at a reduction in rejections and IPCCs by 20% month-over-month. Although this constitutes a mere fraction of the total rejection and IPCC volume, the monitoring of this progress will continue for at least one year so that significant change can be observed while allowing staff to reach these goals at a comfortable pace.

Internship Abstract

Internship Abstract

Title: Social Media Content Developer Intern
Name: Nicholas Luu
Preceptors: Dr. Sandra G. Strothers, Executive Director of NJ Chamber of Commerce Foundation
Agency: NJ Chamber of Commerce Foundation, Trenton, New Jersey

Purpose: To promote and develop content for the *Jobs for America's Graduates* program via social media platforms (Facebook, Instagram, LinkedIn, and Twitter).

Significance: Low-income students are at higher risk of dropping out of school. Choy and Bobbitt (2000) explains that low-income is defined as those whose family income is below 125 percent of the federally established poverty level in relation to family size. The students that come from these households are considered low-income students. Without a high school diploma or an equivalent document, young adults are unable to find stable and secure jobs. Job's for America's Graduates (JAG) program is dedicated to helping at-risk young adults graduate high school and make a successful transition to postsecondary education or meaningful employment. The program prepares students through extracurricular activities, work-based learning opportunities, and personal mentoring.

Method/Approach: Each week, content relating to the program's mission and accomplishments are developed using Canva, an online graphic design platform. The contents consist of tips and tools for students, student's accomplishments, and vital information relating to the program. The designs and captions for the post are developed and prepared for posting on scheduled days. Three designs are scheduled for posting weekly. Once successfully developing content for the week, content planning and development continues for the following week. On scheduled posting days, the content developed would be posted via social media platforms. After the posting of content, analytics relating to engagement is analyzed to view the popularity and success of the design.

Outcomes/Results: At the end of the project, about 48 unique contents would be developed and posted to the organization's social media platform. The designs fall into three categories. Each category contains a theme with the corresponding day: Motivational Monday, Work-It Wednesday, and Feel Good Fridays. Each content highlighting the organization's mission, accomplishments, and students' part of the program. The project is part of a larger scheme regarding the national efforts of the program. The result of the project is to continue promoting the program's mission in helping at-risk students overcome educational obstacles to achieve graduation and seek out post-secondary opportunities such as college, trade, or work.

Evaluation/Conclusion: As the project is part of a larger project, analyzing the organization's social media metrics would provide information on how successful the project has become. Through engagement and satisfactory responses on the social media platform, the data analytics would provide insight on the success of each content posted. However, the metrics impose some limitations such as inaccurate engagement and satisfactory responses. The best course of action to evaluate the program's project is to examine the graduation rate of the program for high school students and compare the numbers to previous years.

Internship Abstract

Title: Module Construction for “Jobs for America’s Graduate Program”

Name: Anisha Malhotra

Preceptors: Donna Custard, President

Agency: NJ Chamber of Commerce Foundation - Trenton, NJ

Purpose: To further the education of high school students by creating modules related to career essentials, including lifestyle changes, job outlooks, financial literacy and resume building techniques.

Significance: In June 2011, the unemployment rate for high school graduates who did not pursue a further degree was 10% whereas those with a bachelor’s degree or higher had an unemployment rate of 4.3% (U.S. Bureau of Labor Statistics, 2018). There are an increasing number of opportunities for those who have furthered their education after high school as opposed to those who have not. It is important to share the needed information with these students at a younger age so that they can understand the significance of pursuing a career after graduation. The NJ Chamber of Commerce offers educational modules to encourage students to pursue higher education.

Method/Approach: The NJ Chamber of Commerce Foundation has a number of copyrighted modules in PDF format that are now very outdated. In order to reconstruct these modules, the first step was to go through them and retype all the text on new slides and in separate text boxes so that they could be easily edited by the NJCCF in future years. Step two was to find all slides with any statistics or research and confirm the information. The citation was added to the slide. If the data could not be confirmed, supplementary information and its citation was provided to serve the same purpose as the previous information. The third step was to make the presentation visually appealing to keep students interested in the content. The NJCCF database of photos was used to find photos with the correct copyright permissions. Images were then inserted on the slides. Finally, after inserting graphics on each slide, each slide was formatted with different colors, font sizes, and styles that look both professional and appealing.

Outcomes/Results: Eight modules were completed during this project. An average of 100 slides per module were modified. One hundred new images were added. All slides were reformatted with better colors, fonts, and styling. About 15 sets of data were fact checked or replaced per module.

Evaluation/Conclusion: A main challenge was not being able to fact-check information on the PowerPoint. Because the internet is so vast, it is difficult to tell whether the reason that exact information can not be found is because it is outdated or because the search keywords were incorrect, which is why the process can be frustrating. Finding supplemental information that relays the same message was also a challenge. A great way to learn about how beneficial these modules are for students is to give them an anonymous survey.

Internship Abstract

Title: Photo Contest Marketing Campaign

Name: Taylor Manno

Preceptors: Robert Tolmach “Co Founder”

Agency: Changing the Present

Purpose: To create a photo contest that will generate awareness and donations for nonprofits through the *Changing the Present* nonprofit platform.

Significance: Most of the 1.1 million nonprofits in the United States need far more donations to pursue their missions, as the scale of problems is much larger than the available funding. One particular area of unmet need is among the nonprofits that meet the needs of Women. More than 45,000 American nonprofits (4% of the total) address that cause of Women, yet they only receive 1.6% of all donations to nonprofits (CNBC). A photo contest will encourage people to submit photos about the cause (Women & Girls) and raise awareness of the work of the nonprofits that address it. The contest is intended to raise awareness of the cause, generate traffic to the CtP website, and generate donations.

Method/Approach: The public will be invited to submit photos that pertain to the cause of Women & Girls, as well as the ways that nonprofits are meeting their needs. They can provide a short description to explain their photo. Each page showing the photographs on the site will include a donation button where visitors can support the organization or need that is portrayed. The opportunity to generate funding for favorite nonprofits, earn recognition, and win prizes will encourage contestants to invite others to see and vote for their photo. This style of contest will encourage participation, awareness of the many nonprofits seeking funding, and should increase the amount of donations to all types of organizations. The first part of this process is the planning. This includes identifying the potential sponsors, celebrity judges and venues for the display of the winning photos for each cause category (Women & Girls, Environment, Animal Welfare, and Veterans). The platinum sponsor is likely to be a large tech company with which CtP’s co-founder has begun discussions. CtP’s tech team will implement the web functionality. Once the planning is completed, the business arrangements made, and technology is ready, the contest can officially start.

Outcomes/Results: The photo contest should provide Changing The Present with increased traffic to their website and generate awareness of both the organization and the many nonprofits that need funding. This project is meant to be used for multiple reasons, which is why there are multiple categories. The diversity of the photo contest should bring in more donations through Changing The Present, which would most likely lead to more people using Changing The Present in the future.

Evaluation/Conclusion: The best way to make sure this project has the desired outcome, there should first be a small number of test runs of a similar contest. Robert has decided to make a small test group with a few colleges participating in a similar photo contest. This test round will help determine any improvements that are needed and show how successful the full scale of the project could be. There are time frame limitations due to COVID. The test group may be able to start early 2021, but the actual launch of the photo contests may be delayed until the pandemic is less prevalent.

Internship Abstract

Title: The Queering and Racialization of the School-to-Deportation Pipeline

Name: Viridiana Martinez

Preceptors: Katherine Sastre, Outreach Coordinator

Agency: New Jersey Alliance for Immigrant Justice

Purpose: To study and analyze how the school-to-deportation pipeline targets immigrants with marginalized gender/sexual and racial identities in the United States.

Significance: There are approximately 725,000 students in the K-12 education system who are undocumented, many of who risk facing the school-to-deportation pipeline (STDP). The STDP is the process in which undocumented students are criminalized through harsh disciplinary means at school, heightening the likelihood that they be pushed out of the education system and into the branch of immigration enforcement within the criminal justice system. This process disproportionately impacts students whose identities meet at the intersection of undocumented status, race, and gender/sexuality. Undocumented students of color who are LGBT+ are vulnerable to such a process due to their marginalized identities. The New Jersey Alliance for Immigrant Justice (NJAIJ) is a coalition of organizations that create and achieve policies in New Jersey to welcome and support immigrants. This comprehensive research on the functions of the STDP provides the organization with a greater understanding of the issue to propose policy solutions to address it.

Method/Approach: To analyze the manner in which the STDP targets immigrants with marginalized gender/sexual and racial identities, a literature review was created utilizing peer-reviewed articles from scholarly databases and newspaper accounts. The literature review includes reputable sources, including the Center for American Progress, the Annals of the American Academy, Theory Into Practice, the Georgia State University Law Review, Education Digest, and Vox News. The articles provided comprehensive analyses of the intersection of such concepts, and their influence on the STDP.

Outcomes/Results: The literature review was composed of sources that focused on the intersection of the racialization of immigration enforcement, and the LGBT+ experience in over-policed K-12 schools. Findings support that immigrant students of color, specifically Black immigrant youth, are disproportionately funneled into the STDP because of the criminalization of Blackness. Immigrant students of color are two to three times more likely to face punitive measures for behavioral concerns than their white non-immigrant counterparts for the same behavior. LGBT+ youth are three times more likely than their heterosexual counterparts to be over-penalized and over-criminalized because of their sexual orientation and gender identity or expression. It is inferred that students whose identities exist at the intersection of race, immigration status, and queerness are derailed from their education and pushed into a cycle of criminalization.

Evaluation/Conclusion: To ensure the safety and educational success of undocumented LGBT+ students of color, policy initiatives and advocacy campaigns must be enacted to decrease, and eventually abolish, the presence of police in K-12 schools. The connection between law-enforcement and Immigration Customs Enforcement must be terminated, as well.

Internship Abstract

Title: Healthy Recipes and Live Well-Vivir Bien New Brunswick Social Platforms

Name: Karen Mejia Corbera

Preceptors: Director Supervisor: Manuel Castaneda, Community Health Director

Agency: New Brunswick Tomorrow- New Brunswick, NJ

Purpose: To encourage healthy eating through social media by utilizing short videos in order to grow the Live Well-Vivir Bien media presence.

Significance: According to the New Jersey Childhood Obesity Survey done in 2010 most of New Brunswick Children did not meet the vegetable consumption and about half the citizens did not have fresh produce or low-fat item available in their local stores. The Live Well-Vivir Bien New Brunswick campaign focuses on holistic health, addressing some of the overarching social determinants of health. Live Well focuses on five areas of health and one of them is the Eat Well section. The Eat Well section focuses on promoting healthier eating resources available for the residents of New Brunswick. By promoting Farmers Markets, Community Gardens, Soup Kitchens, Food Pantries and Cooking Classes. Through this section not only are the New Brunswick residents directed towards healthier food options but are now also encouraged to cook quick, sustainable and healthy recipes.

Method/Approach: The Live Well-Vivir Bien campaign focused on posting short video recipes that maintain their audience's attention. Previously, to posting short videos the Live Well campaign would post healthy recipes and they did not gain any traction. In order to maintain the followers attention the Live Well campaign selected 30second to a minute video that not only provided the follower with the recipe but also provided the final product. The short clips were posted Mondays and Wednesdays on both the Facebook and Instagram account. The videos were selected from both Tik Tok and Instagram not only by their viralness on those platforms but as well as their content. The recipe videos were not only selected on being healthy but also had a special consideration to the Black and Hispanic community in New Brunswick.

Outcomes/Results: Data was collected from both the Instagram and Facebook page beginning in the month of October to November. For the Data Live Well measure the increase in views and reach. Views are the number of times the video was watched and reach is the number of people that saw the post on their account. During the month of October the Pastelon recipe (Plantain Lasagna) received 57 views on instagram and 19 views on facebook but reached 106 people on Instagram and 48 people on Facebook. While during the month of November the Masala Chicken Skewers recipe reached 30 views on Instagram and 9 views on Facebook. It however reached 40 people on Facebook and 96 people on Instagram.

Evaluation/Conclusion: By utilizing short videos that grab the viewer's attention the Live Well campaign has been able to increase their reach and should continue to post recipes that are not only healthy but also entertaining to watch.

Internship Abstract

Title: Drafting Legislation to Increase Access to Secondary Education

Name: Simone Monaco

Preceptors: Kathryn Balitsos, Deputy Chief of Staff

Agency: Office of Senator Vin Gopal, Assemblyman Eric Houghtaling, and Assemblywoman Joann Downey

Purpose: To conduct a policy review on Education Policy and propose legislation to make secondary educational affordable for more New Jersey students.

Significance: As of August of 2019, New Jersey residents owed 37.6 billion in student loan debt. On average, borrowers owe \$33,297 each. In the past 10 years, tuition and fees at four year colleges have risen by 35%. With costs rising more, students are looking for affordable ways to gain an education. New Jersey community colleges provide an affordable way to educational attainment. Graduates of these institutions go on to fill our community with an educated and accredited workforce. Our state has several grant programs that help low income students, such as the CCOG (Community College Opportunity Grant) and the EOF (Educational Opportunity Fund), but many families with incomes too high for these programs still struggle to afford college. Additionally, our state is suffering from a skills mismatch in our workforce. We have an excess of vocational jobs available, but not enough workers with the proper training to fill those positions.

Method/Approach: First major existing educational policies in New Jersey, such as the CCOG program, the EOF program, and policies administered by the NJ Higher Education Student Assistance Authority (HESSA) were examined. An income gap analysis was conducted to measure how these programs affect the community, positively and negatively. The progression of previous education policy bills through the New Jersey Legislature was explored, and staff and officials were interviewed about what type of policies they think would help students. Existing out-of-state legislation such as the Excelsior Program in New York and the State Promise Program in Rhode Island were also studied.

Outcomes/Results: Five bills were proposed. The first bill would create a loan redemption program for vocational schools. The second bill would reimburse tuition for community college students whose families make under 80k and meet certain criteria. The third bill would offer free student loan education classes to freshman at private and public colleges. The fourth bill would expand the gross income cap of the CCOG program to 80,000. Finally, the last bill would change the way grants for the CCOG program are distributed.

Evaluation/Conclusion: If a bill proposal gets sponsored by a legislator, a draft legislation request will be prepared and submitted to the Office of Legislative Services. If the bill gets approved by the OLS, a mission and summary statement for policy will be created. At the end of this project the bill may be sent to the New Jersey Assembly for deliberation. Compiling preliminary research was challenging at first because I did not know what angle I wanted to take to address affordable secondary education. Another component of creating bills was viability, and determining which concepts and policy corrections my legislators were most likely to support. My research and bill proposals will be presented and reviewed by staff on Friday, December 11 2020.

Internship Abstract

Title: COVID-19 Recovery Center (CRC) Program
Name: Alana Moonsammy
Preceptors: Patricia Richards, Director of Value-Based Initiatives
Agency: Saint Peter's University Hospital (SPUH)

Purpose: To develop a COVID-19 Recovery Center program in an effort to address lingering symptoms endured by COVID-19 “long-haulers.”

Significance: According to the Centers for Disease Control and Prevention (CDC), COVID-19 is an upper respiratory illness that has ravaged the world and caused approximately 244K deaths in the United States, with New Jersey having the third-highest mortality, as of September 2020. Many post-COVID-19 patients continue to experience long-term symptoms and have been termed “long-haulers.” Long-haulers are patients that have previously been diagnosed with COVID-19 but still suffer from manifestations of the disease such as fatigue and shortness of breath. According to recent data, 35% of post-COVID-19 adults had not returned to their normal health status. Saint Peter's COVID-19 Recovery Center (CRC) program provides post-COVID-19 patients access to multi-specialty care customized to their needs to manage their symptoms while developing a better understanding of the long-term effects of COVID-19.

Method/Approach: The CRC program provides post-COVID-19 patients access to personalized care and treatment from experienced physicians and specialists. The program includes an initial patient consultation to form a baseline assessment and develop a comprehensive treatment plan. The patient will visit specialists such as a cardiologist or pulmonologist. The patient coordinator will monitor the progress of treatment and provide supportive resources. The development of the program involves a multitude of steps, including engaging and streamlining care with specialists outside of Saint Peter's system, developing content for the web page, creating discharge flyers and patient brochures, transcribing phone calls for the CRC hotline, drafting the patient coordinator job description, and applying for grants to fund the program.

Outcomes/Results: While the program is still in its early stages, it currently provides “long-haulers” with compassionate and individualized treatment to address their lingering complications. The program allows researchers and medical staff to develop a comprehensive understanding of COVID-19. As of October 22, the CRC hotline has received 56 calls, enrolling an additional 20 patients in the program, for a total of 450 patients that have begun to receive the proper medical treatment and support. Patients were enrolled in the program prior to the CRC hotline with 286 from outpatient follow-up scheduling and 144 from the outreach CRC phone survey.

Evaluation/Conclusion: A growing number of COVID patients will need access to customized care to combat their long-term symptoms. The CRC program provides active awareness through patient discharge flyers, the web page, and news coverage to inform individuals of resources provided by Saint Peter's University Hospital. The data gathered from the program will allow physicians to establish effective methods of treatment based on the results. A key component for measuring results will be to examine and integrate data findings into protocols and operations and identify challenges and gaps needed to optimize patient care.

Internship Abstract

Title: Bringing Awareness to a Rare Bone Disease

Name: Taralyn Naslonski

Preceptors: Bonnie Starr, Patient Engagement and Marketing Manager

Agency: Soft Bones Foundation

Purpose: To research the rare bone disease, Hypophosphatasia, and create awareness of the disease through social media platforms and fundraising tools.

Significance: Hypophosphatasia affects every 1 per 100,000 live births each year (Mayo Clinic). There is currently no cure for Hypophosphatasia but in recent years, a treatment to help lessen the severity of symptoms has become available in a few countries. The Soft Bones Foundation works to raise money to educate patients and the medical community, spread awareness in various states as well as advocating on Capitol Hill and connect individuals and families across the globe. The Soft Bones Foundation is raising awareness by working to create different social media posts, explaining the importance of how dental care relates to Hypophosphatasia, along with creating an updated website.

Method/Approach: The solution to help bring awareness to Hypophosphatasia is to increase patient engagement. In educating people of how dental care relates to the disease, Soft Bones sent out dental care kits to Hippo Squad members. Hippo Squad, is a group for those ages 3 and up which helps to keep all age groups involved in awareness efforts. Additionally, the Soft Bones Foundation is working on creating a new website to expand their recognition of the disease. The website has many different aspects to it, including patient stories and an apparel shop. In creating these components, nearly forty different blog posts written by patients are being posted, explaining their stories of what they went through and how they are coping with Hypophosphatasia now.

Outcomes/Results: Hippo Squad kits were sent out in October because it was Dental Hygiene Awareness Month. Kits included a “Supertooth Challenge” to help encourage children to brush their teeth. The activity explained the importance of brushing to reduce periodontal disease, a side effect of Hypophosphatasia, and also urged children to have their guardians post their picture. Along with the “Supertooth Challenge”, a parent guide was attached explaining the relationship of periodontal disease and Hypophosphatasia. The guide further explains the steps to help prevent the disease at different stages of oral health from infants to adults. In creating the new website, blog posts help to relate to the viewer by explaining how families are affected during a Hypophosphatasia diagnosis and through the use of photos. Some patients did not find out their diagnosis’ until their late 40’s which then allows them to trace back to their childhood of prematurely losing teeth and breaking of bones. In the shop component of the website, different types of apparel were created to cater to all ages and genders. Additionally, a decal was created in hopes of marketing the hashtag #HPPSTRONG. Having this sticker posted on cars or other various platforms, helps people to create a bond as well as educate others of this rare disease.

Evaluation/Conclusion: Through these awareness efforts, the Soft Bones Foundation contributes to the bigger picture. It is hard to evaluate short term how many new people become aware of Hypophosphatasia, rather it is more about growing awareness from a day to day perspective in hopes of one day having the disease as something pediatricians and pediatric dentists are fully aware of to help diagnose earlier on. This can help to gain more funding towards Strensiq, the only available treatment option, along with more research in other treatment options.

Internship Abstract

Title: Barriers and Facilitators to Enrollment, Goals, and Budget Development in Self-Directed Care for People with Behavioral Health Needs

Name: Sadikun Nisa

Preceptors: Ana Stefancic, PhD, Associate Research Scientist;
Daniela Tuda, LCSW

Agency: Columbia University - Department of Psychiatry

Purpose: To evaluate the barriers and facilitators to enrollment, goals, and budget development in Self-Directed Care for people with behavioral health needs.

Significance: According to the Centers for Disease Control and Preventions (CDC), one in five Americans will experience mental illness. Self-Directed Care (SDC) is a pilot program that allows individuals to get support and resources to help with their recovery journey and improve quality of life. SDC pilot program was authorized by the Centers for Medicare and Medicaid Services (CMS) under New York State's 1115 Research and Demonstration waiver.

Method/Approach: Fifteen key informants (e.g. supervisor, support broker/resource consultant, care coordinator, program manager) from the two SDC pilot site agencies and affiliated personnel from the Office of Mental Health (OMH) participated in semi-structured virtual interviews. Interviews lasted about 60 minutes, were audio-recorded, and transcribed verbatim. Summaries were written while conducting the interviews. Memos were written to address specific themes and a codebook was created with terms and definitions to illustrate participant's experience, staff roles, barriers, and impact of the program.

Outcomes/Results: Barriers to enrollment included eligibility determined by their enrollment in a Health and Recovery Plan, long waitlists, and extended intake processes. The process of accepting new participants is slow and is limited to 100 participants per program. After the limit has been met, additional participants are placed on a waitlist. There have been cases where participants from the waitlist did not get a call back in a year. Barriers to setting up goals would be the extended paperwork and participants who struggle to identify goals. To overcome these barriers, the support brokers work with the participants by assisting them to set goals, inform and create wellness plans. Participants are in charge of their own wellness and goals; however, the support brokers are only there to provide assistance in identifying the goals if needed. This process plays a key role in budget development. Nevertheless, one of the biggest barriers to budget development is the uncertainty over when and whether or not it will get approved. The approval time for the budget varies depending on the amount. It can take up to 1-2 weeks from the day or a couple of days from submitting the request to get approval. Budget denial is not common but when a request is denied the rationale is not always clear.

Evaluation/Conclusion: Overall, SDC is an excellent program that helps participants with their wellness goals and improves the quality of life. However, there are still areas of improvement for the program such as an increase in staff and program capacity, shorter enrollment processes, and clearer guidelines and rationales for budget restrictions and denials.

Internship Abstract

Title: Patient Engagement Advertising

Name: Estephani Nunez

Preceptors: Nohely Zimic- Office Manager

Agency: Brunswick Dental Care

Purpose: To increase patient recruitment through positive engagement methods.

Significance: Dental offices, like most medical offices, normally rely on their patient volume for revenue. Without effectful advertising and recruitment there is a scarcity of patients. This puts offices in a position in which they are unable to make payroll. COVID-19 is an existential threat. A lot is still unknown in regards to the possibility of a second wave. Many Americans are still in fear of visiting the dentist because of the virus, and while their fear is based somewhat on fact, it is important for private practices to reach out to current and new patients.

Method/Approach: Between September 29th and October 30th, the following patient recruitment efforts were implemented. The office's website was updated and included photos of the new staff. The website is also mobile-friendly now. We began soliciting feedback and reviews via text messages through Solution Reach, the primary patient communication tool. A barter referral system was implemented with Dr. Jain Sapna MD. The primary doctor began referring her patients to our office in an attempt to mutually recruit patients. In order to analyze results, new patients were asked how they heard about our office when they filled out their new patient forms. Along with this, our dental practice management software, OpenDental, tracked how many new patients each office location of the practice saw.

Outcomes/Results: In August, the practice managed to increase patient recruitment by 11 patients. In the month of October, the practice had a total of 56 new patients, an increase of 4.9%. More than half of the new patients that were seen were referred by Dr. Jain's patients. One patient learned about our practice through google search and running into our website and seven patients found our business card in other local businesses. Patient feedback through the text messaging tool included a need to shorten patient waiting time. Positive feedback included the staff being attentive and a flexible appointment schedule.

Evaluation/Conclusion: Ongoing maintenance of the website and actively updating any scheduling changes has proved to be efficient in recruiting new patients. Reaching out to local businesses and a partnership with a primary care physician's office has been most beneficial. The previous will be prioritized to ensure continued improvement in the future. In regards to patient feedback, these will begin to be incorporated into monthly staff meetings. Patient feedback will be discussed with the staff in order to improve upon any patient complaints and to continue to demonstrate the positive qualities patients point out.

Internship Abstract

Title: Music and Healing
Name: Catherine Nyajure
Preceptors: Supervisor: Gloria A Bachmann, MD, MMS, Director Women's Health Institute
Agency: Rutgers Women's Health Institute at Robert Wood Hospital

Purpose: To shed light on the efficiency of using music therapy as a coping mechanism following sexual assault.

Significance: After sexual assault, victims face a hard time in trying to get past the ordeal. As a result of the sexual assault, the victims go through various mental, emotional and behavioral challenges. The sexual assault attack leaves behind post-traumatic stress disorder, depression, nightmares, anxiety and regular hospitalization (Kaitlin, 2006). With many survivors failing to get professional help because of fear of judgement, a personal coping mechanism is needed.

Method/Approach: The paper makes use of a case study of a girl sexually assaulted at the age of 19, presently 21 years old. The case study gives adequate information on the aftermath of the ordeal. The case study also provides information on the challenges the 21-year old girl faced on her road to recovery and the benefits and efficiency of using music as a coping therapy. The paper also makes use of review of pertinent literature. Five articles were identified online from websites such as WebMD, Psychology Today and National Center of Biotechnology Information (NCBI). Three of the five articles support the role of music effectiveness as a form of therapy and two explore the long-term effect of sexual assault on victims including mental disorders such as PTSD.

Outcomes/Results: This information was synthesized into a 5-page report for the Director of Women's Health Institute to better inform individuals on the role and possibilities that music therapy can play in helping victims of sexual assault. The report suggest that music therapy is efficient in helping survivors of sexual assault in conjunction with other treatment methods such as medication and professional help. According to research, therapy from music displays unmatched efficiency in the independent management of anxiety, depression as well as chronic pain (Friedman, 2014). From the case study, the 21- year old girl admits to finding healing in music as a form of therapy to help her get past the ordeal.

Evaluation/Conclusion: There is evidence from regulated treatment outcome research that listening to as well as playing music can be an effective treatment method for mental health issues. Victims of sexual assault can devote to listening to music from various genres to attain healing. More research needs to be done on the role of music and its potential healing effect. Other topics that should be explored are the number of victims that have or are benefiting from this form of therapy and if the genre of music listened to by a victim plays a role in healing.

Internship Abstract

Title: Veteran-to-Veteran Hospice Volunteer Program

Name: Kacey O'Dell

Preceptors: Jena Pedigo, Volunteer Coordinator and
Rebecca Poling, Caris Representative

Agency: Caris Healthcare

Purpose: To provide veteran hospice care patients with an interpersonal veteran volunteer.

Significance: The Department of Veterans Affairs (VA) provides programs benefiting veterans and members of their families to transition out of their military lifestyle with assistance in housing, disability compensation, education, pension, rehabilitation, and healthcare services. Caris Healthcare is hospice care that works directly with the We Honor Veterans (WHV) program which allows special and unique end-of-life care included in the VA benefits. By providing the veteran patients in hospice care with a veteran volunteer, this allows the patient to talk to someone who gets it, who they trust, and someone who can relate to them and their time in the service.

Method/Approach: Veteran volunteers provide an understanding of the needs of the veteran patient that others may not recognize. At Caris, the focus for the veteran patient's needs is specific and unique to tend to their end of life care. In order to find veteran volunteers, research was done on veteran groups and legions in the Nashville area. Organizations such as the VA, American Legions, Veteran of Foreign Wars (VFW), and local clubs were all contacted through their websites, social media, and phone number to spread the need and to find willing volunteers to work with our hospice patients.

Outcomes/Results: With more one-on-one veteran volunteers that can talk to, relate, and provide unique understanding to veteran patients' needs, their end of life care will be more valuable. Veteran patients are able to heal their past memories of being in the service by talking things out with veteran volunteers who understand their experiences and lingo. With the efforts of recruiting veteran volunteers, they will be adequately trained on how to be a companion of care for veteran patients and will hopefully continue to spend hours volunteering at Caris Healthcare to help better end of life quality care. The amount of volunteers confirmed are inconclusive, but ongoing as it is always an active application for volunteering at Caris Healthcare.

Evaluation/Conclusion: It is necessary that the veteran patients in hospice care are being given the quality end of life care they deserve. As the staff of Caris Healthcare is trained regularly on how to give the best care to veteran patients and their families, these employees do not fall under the percentage of people who served in the United States Military. Veteran-to-veteran volunteers give the veteran patients a unique interaction that allows them to share stories and experiences to give them a peaceful yet rewarding end of life care. In order to continue veteran-to-veteran volunteerism, Caris Healthcare must continue to recruit willing veterans to make a difference in their end-of-life care.

Internship Abstract

Title: Mental Health During a Pandemic
Name: Ronak Panchal
Preceptors: Directing Supervisor Timothy Bracaglia, MSW, LCSW, LCADC
Agency: Oasis Behavioral Health & Addiction Services

Purpose: To analyze and compare the various forms of teletherapy offered throughout the course of a global pandemic.

Significance: In March, 2020, when COVID-19 came to the United States, it infected people in the tri-state area quickly. We established a “lockdown” that included staying inside our houses to prevent the spread of the coronavirus. Both the fear of contracting the virus, as well as the isolation factor can be very stressful both physically and mentally. As a society, we are slowly advocating more and more for mental health support. At Oasis Behavioral Health & Addiction Services, the main priority is to still provide high quality therapy remotely amid the current health crisis. A platform called doxy.me has given millions of people throughout the world access to therapy online. Telemedicine has been very effective to ensure patients have the best possible service provided during these difficult times.

Method/Approach: From October 1, 2020 to November 25, 2020, a three question survey about telemedicine was sent out to 40 individuals via SurveyMonkey. The three questions are about telemedicine and traditional therapy. In the survey we asked if teletherapy is effective for the individual throughout COVID-19. Next we asked them if they would prefer traditional means of therapy or telemedicine. Finally, we asked them once the global pandemic is over, would they still prefer traditional in person therapy or would they want to continue with telemedicine.

Outcomes/Results: As of November 25, 37 people responded to the survey. Ninety-four percent said they preferred the switch from in person therapy sessions to telemedicine. Thirty-five respondents (94%) answered that telemedicine has proven to be very effective for them with stay at home guidelines in place. A somewhat unexpected result was that 29 respondents would choose traditional therapy over telemedicine when the pandemic ends. Over 50 percent of people (21 respondents) said in person therapy is preferred over telemedicine.

Evaluation/Conclusion: Telemedicine has been an effective alternative for many people throughout the global pandemic by offering the convenience of therapy right at your fingertips through personal electronic devices, and having them feel comfortable in the safe comfortable environment that is their home. In the end, however, the in-person experience is still preferred over the convenience of teletherapy.

Internship Abstract

Title: Destruction of Patient Medical Records
Name: Priyanka Patel
Preceptors: Direct Supervisor: Yeong Bae, Executive Director
Agency: Stein Hospice

Purpose: To destroy the Electronic Medical Records which are seven years old to protect patient's confidentiality, and to reduce HIPAA violation

Significance: Proper disposal of Patient Medical Records is a great strategy to protect patients' information according to HIPAA. Destroying old records after the retention deadline reduces the potential of security breaches. There are higher chances of getting the data leaked if the file is overloaded. There is no reason to leave any patient information, which is unnecessary to keep after it passes the retention deadline. Medical Records contain detailed information about a patient's history, diagnostic test results, clinical findings, pre- and post-operative care, medications, and patient's progress. Stein Hospice is clearing old medical records to clear up office space, and to protect patients' health information.

Method/Approach: A team was formed of two Rutgers interns and the Executive Director to store and destroy older Patient Medical Records. All the records have been organized alphabetically according to the year of discharge date. The records were from the discharge year 2011-2015. After organizing the records, Excel spreadsheets were created to index it to keep track of the records that are ready for destruction. The records had been sent to Iron Mountain company for destruction. Documentation of the records was maintained before sending it out for destruction, which includes: description of the records, dates, and methods of destruction, inclusive dates, and signature of the supervisor. The method used to destroy records was industry-standard shredding. The Record's destruction was done in agreement with state and federal law, and it followed a retention schedule and destruction policy.

Outcomes/Results: There were about 1,200 Medical Records that had been sent out for destruction. Office space was cleared up, and Patient's Health Information was maintained due to the destruction of old Medical Records. The organization has complied with HIPAA privacy rules, maintained state and local requirements for retention and destruction of records, and reduced the risk of legal discovery.

Evaluation/Conclusion: Off-site storage and destruction of Patient Medical Records safeguards Patient Health Information (PHI) and reduces the chances of a HIPAA breach. It also frees up space in an already-crowded records room. Lastly, the policy is intended to increase consumer confidence in the agency by providing assurances as to how their PHI will be treated and ultimately protected over the span of service delivery timeframes and in the seven (7) years following discharge from services.

Internship Abstract

Title: CJDB Warehouse Optimization and Operations Project

Name: Roshani Patel

Preceptors: Ginny Kafka, Executive Director

Agency: Central Jersey Diaper Bank (CJDB), New Brunswick NJ

Purpose: To improve the functionality of the CJDB's warehouse by creating tools and processes to be used by staff and volunteers and ensure safety.

Significance: The CJDB warehouse is the centralized storage location for the growing agency's inventory of diapers, wipes, clothing, baby products, and other medical equipment. Volunteers and staff must be able to navigate the space and work with the inventory. While diapers have the advantage of not being perishable, they still must be kept dry and they can take up a lot of space. Since the pandemic, requests for diapers have increased by 248% (CJDB database, October 2020). In the midst of the pandemic, the organization had to innovate new ways to respond to dramatic increases in inventory and foot traffic, warehouse optimization projects will resolve current issues managing inventory while creating a safer workplace for volunteers to assemble bundles of diapers and clothing for clients.

Method/Approach: To optimize the warehouse space, by incorporating the 5S Strategy (Lurk, n.d.) used in industrial distribution environments:

1. Sort – remove all non-active items such as old files and equipment and free up space to sort and assemble bundles of clothing and diapers
2. Set in order – determine optimal storage locations for diapers, clothing, baby-related items, and medical equipment.
3. Shine – replace worn and broken things such as storage bins and label them clearly.
4. Standardize – rack sizing, storage space, and labels to increase efficiency and reduce errors.
5. Sustain – audit to return any discrepancies to standard weekly, cross-train staff and volunteers.

Outcomes/Results: 18 months ago, the CJDB warehouse was in a state of disrepair and since that time, more than 10 volunteer groups have coordinated efforts to purge and transform the space into a functional warehouse. However, the project was not completed at the time the pandemic transformed the agency. As a result, different projects underway were affected by these changes. We had to develop a sorting process easy to understand by volunteers; which was able to engage over 70 people to sort clothing and bundle diapers to be distributed to clients. In coordination with other staff, we redesigned storage space in the warehouse to accept donations, workspace to process donations, and empty space to store donations and mainly store diapers in a safe manner. Lastly, CJDB warehouse has an operating manual that employees and volunteers can refer to for their work at the warehouse.

Evaluation/Conclusion: This project enabled a much-needed upgrade to the CJDB Warehouse during a steep increase in their operation due to the pandemic. The new operational rules and processes, as well as new guidelines for general maintenance, have been implemented to create a sustainable flow for the storage facility. The suggestions for moving forward are to undertake inventory management as well as training staff on operating warehouses, which will improve efficiency in the future to expand the services and provide more help to the people in need.

Internship Abstract

Title: Create a distribution list to expand the reach of Children’s Specialized Hospital’s Public Education Events

Name: Yael Rabin

Preceptors: David Chakrin, Director of Center
Jenn Biondi, Project Manager

Agency: Center for Discovery Innovation and Development

Purpose: To create a contact list of agencies and organizations who serve families of children with special health needs and professionals who work with this community.

Significance: Children’s Specialized Hospital hosts educational programs designed for families and caregivers of children with special health needs and professionals who serve children with disabilities and special health needs. The hospital’s goal is to increase registration and attendance of their webinar events by creating a large distribution list of relevant contacts. Events for caregivers cover a variety of topics including autism spectrum disorder, safety, special education, and transitions to adulthood for children with special healthcare needs. A distinguished speaker series is organized for professionals to improve their knowledge and understanding of children with special health needs. Through these educational programs, families, caregivers and professionals can benefit from valuable resources and expertise on disability and special health needs as it pertains to children.

Method/Approach: Research of organizations, agencies and groups took place to gather contact names and emails who are involved in the special health needs community. Steps involved gathering and organizing relevant contacts by searching for contacts in special education, advocacy groups, non-profits, hospitals, universities and in government. The search for contacts was wide reaching, including finding contacts in each U.S. state and contacts from international sources. Contacts were compiled into a spreadsheet and organized by geographic location, type of organization, who they serve, along with the specific contact name and email.

Outcomes/Results: The outcome of this project was the delivery of an organized and comprehensive list of contacts to be used as a distribution list for Children’s Specialized Hospital. Prior to this list, the hospital was marketing events to around 20 external research partners. Through this project, over 300 email contacts of organizations serving families and children with special needs and professionals working with this population, were researched and separated based on category. The goal of compiling contacts in New Jersey, all fifty U.S. states and abroad was achieved. Contact lists were uploaded into the hospital’s marketing platform to be utilized for marketing educational events.

Evaluation/Conclusion: Creating a distribution list will not reach full completion in this internship period because the list is set up to keep growing. For the list to reach a steady place, it will have multiple contacts from each U.S. state along with contacts from other countries. In addition to organizing a spreadsheet of contacts, this project will include sending a letter to each contact informing them that their email was added to a distribution list and they will be receiving future event information. Once the contact list is compiled with an initial bulk of relevant contacts, at least 10 contacts will be added to the list each week for the remainder of the internship.

Internship Abstract

Title: New Jersey Parent's Caucus advocacy and awareness for mental health

Name: John Selby

Preceptors: Director of NJPC, Kathy Wright.

Agency: New Jersey Parent's Caucus

Purpose: To raise awareness and advocacy for violence and mental health disparities as public health problems for youths.

Significance: In America, the leading causes for death for people in the age range of 15-35, two of the top three are under the umbrella term for violence, being both Homicide and Suicide. Not only that but there have been severe disparities when looking at mental health in minorities. In which Blacks and Hispanic minorities are less likely to receive less amounts of treatment as well as even looking for treatment for mental health problems. One in three inmates within prisons have some sort of mental health problem as well.

Method/Approach: Several things were done to help raise awareness and advocacy for mental health for youths. The filling of advocacy sheets was done for parents with children with mental health disorders. Professional Parents Advocacy binders were updated for training later down the line. NJPC had monthly coalition meetings for advocacy. Finally research was done on both mental health disparities and violence as public health problems for youths and fact sheets were created for the use of the organization.

Outcomes/Results: As a result of the advocacy sheets filled out by parents, they are now with our database where the organization promotes some influence on decisions for the parent's children within some institutions including jobs or schooling. The updating of PPAs will allow parents within the advocacy training to have the latest information on mental disorders and statistics within the state of New Jersey. Finally fact sheets provide information on the disparities within mental health and youth violence, this includes statistics, and factors that play into the public health problems.

Evaluation/Conclusion: As a result of the raising of awareness of these public health problems, parents may contact the organization more easily. Additionally the raising of awareness of these public health problems sheds light on these public health problems' factors so they may be addressed by officials.

Internship Abstract

Title: Pioneer Women in the Study and Access of Reproductive Health

Name: Sameen Siddiqui

Preceptors: Dr. Gloria Bachmann

Agency: Women's Health Institute at Robert Wood Johnson

Purpose: To analyze the different roles and backgrounds of women throughout history who contributed to the advancements in reproductive healthcare and the right to access it.

Significance: Women's reproductive healthcare is always a relevant subject, especially during election years. With a conservative majority now leading the Supreme Court, many people across the country are apprehensive about what a new Justice could mean for the future of reproductive healthcare rights for women in America. Researching the vast history of women in the field of reproductive health and family planning puts into perspective how turbulent of a journey it has been and how far we have yet to go as a nation.

Method/Approach: Primary and secondary resources from the 1900's to current day detailing the history of women in their connection to reproductive healthcare were analyzed. Sources were found using the Rutgers Library Databases and online searches for peer reviewed sources. Online searches on the topic of the history of reproductive health resulted in the discovery of books such as the biography of Margaret Sanger, *Margaret Sanger: A Life of Passion*, written by Jean H. Baker. Newspaper clippings from the 20th century were also examined. For more modern and present day opinions, various Op-Eds written by women were consulted. From all the sources found, five abstracts and two primary sources were used.

Outcomes/Results: All sources recognize that the 20th century was a turning point in family planning and reproductive health accessibility. Three sources emphasized the work and career of Margaret Sanger, Three of the sources were focused on legislation concerning reproductive rights. One reference, *What's At Stake: Healthcare and Reproductive Rights*, directly listed the reproductive healthcare and healthcare access bills, such as *Roe v. Wade* and the ACA. Other mentioned cases such as *Gonzales V. Carhart* were challenged once a conservative majority took place on the Supreme Court. Two sources note that reproductive healthcare access did not always spark issues between political parties, but rather once *Roe v. Wade* was instated, Republicans were able to leverage it to mobilize conservative voters and donors. Four sources note that the politicization of reproductive healthcare access comes at the expense of women, and 2 sources note that women of color are disproportionately affected by these laws. Family planning has always been a bit of a contentious issue in America and it is only getting more divisive as we enter unstable political times.

Evaluation/Conclusion: Further research detailing the connection between women of color and family planning throughout history is still warranted. It is clear that most of the resources from the 20th century detailing the plights of women in family planning are only centered around upper class white women. The experiences of women of color or women in poverty in America are much different yet their stories are not as readily available.

Internship Abstract

Title: Active Living During a Pandemic “Move Well”
Name: Paniz Taheri Fahliani
Preceptors: Direct Supervisor: Manuel Castaneda, Community Health Director
Agency: New Brunswick Tomorrow – New Brunswick, NJ

Purpose: To encourage residents of New Brunswick to adopt more active lifestyles during a pandemic by promoting active work out videos.

Significance: Obesity is a problem that affects 59.9% of adults in New Brunswick as well as 46.4% of children and youth. (RWJMS) During this pandemic, there have been excessive amounts of stress due to the quarantine and the effects it has caused on everyone. Research finds that this will have an increased risk of obesity. The Live Well-Vivir Bien New Brunswick mobile application has extensive programs, activities, and events that relate to the health and wellness of all New Brunswick residents. Active living is one of the major focuses of the campaign that is discussed frequently on the website, app, and all social media. The “Move Well” section offers events and programs that involve a more active and energetic approach. With the use of this section and the active living topic itself, more people in New Brunswick can be encouraged to be more active during this pandemic to work towards a lower obesity rate.

Method/Approach: The Move Well campaign has been altered to create bi weekly posts encouraging the community of New Brunswick to get more active. These posts will include videos and pictures that are found on the internet. The videos will include tutorials on how to do certain workouts with materials that can be found at home. An example of how these videos promote staying at home would be that they perform a whole workout on a chair, making it seem much more possible to do at home. The pictures include lists of workouts that can be done with an image of how the workout is performed. Videos of home workouts are being posted to the Instagram, Facebook, and Twitter accounts to give people more accessible options during this pandemic. These videos and the captions can help motivate and give more understanding to the people looking at them. The biweekly posts try to encourage interaction with the community to give feedback on what they like and what they would like to see.

Outcomes/Results: The analytics showed that these videos were getting more impressions than the previous posts had done. The four videos posted in October had 475 impressions on Instagram and only 5 on Facebook. The seven videos posted in November had 922 impressions on Instagram and only 13 on Facebook. The regular posts received 83 impressions on Instagram and on Facebook the current analytics are very similar to the original posts. It seems as though this approach worked on Instagram and needs more work with Facebook. The most saved and active post was the desk workout. This shows that this idea to encourage active living during a pandemic was also a goal of the residents of New Brunswick.

Evaluation/Conclusion: With all the posts going through social media, there is a clear way to indicate which posts are getting activity. The interactions and the activity of each post is looked at when inspecting the metrics. With this information, it is easier to decipher which posts should continue going up. Analytics are observed to see which posts created the most activity, such as likes, comments, shares, and impressions. These analytics will be compared to older posts to see which do better or worse. This way there is a clear view of what the community engages with and what they don't. If the newly implemented posts are better, this will continue to be done each week.

Internship Abstract

Title: Medical Scribe, Dermatology

Name: Rachel Tamasi

Preceptors: Direct Supervisor: Darlene Kwee, MD, FAAD & Rachel LiVecchi, PA-C
Project Supervisor: Christopher Hasson, Senior Account Manager

Agency: Princeton Medical Group/ ScribeAmerica

Purpose: To document a patient's medical appointment into an electronic health record with an analysis of the patient's visit while improving efficiency and quality of care delivered for the provider and the patient.

Significance: Clinical documentation is a crucial aspect of accurately diagnosing patients and reflects the services provided to the patient. If presented with errors, it can lead to problems with reimbursement and communication with other providers. Princeton Medical group allows for physicians to work with a medical scribe. A medical scribe allows for improvements with clinical documentation and more transparent communication between providers, billing accuracy, healthcare analytics, and validation of care. Physicians using a medical scribe have clearer and better communication with the patient, reduce the burden of EHR documentation, and reduce burnout and stress while increasing workflow satisfaction.

Method/Approach: A collaboration created with physicians paired with a medical scribe was implemented to test the partnership's significance with the quality of care delivered to patients. The providers have around 20-25 patients per shift with a combination of brief office visits, surgeries, or elective procedures scheduled with 15-45 minute windows. During each appointment, the provider addressed the reason for the patient's visit, while the scribe is on a separate laptop documenting the visit into the EHR of the provider's preferred template. The visit's specific documentation includes the physical examination, the assessment/plan, family or personal histories, and discussion topics during the visit. At the end of each visit, the provider reviews, edits, and signs off on the EHR.

Outcomes/Results: From the medical scribe's implementation in the Dermatology department, majority patients' questions/concerns are fulfilled with satisfaction from patient feedback after visit. Reduced post-appointment documentation, increased accuracy in documentation, decreased provider stress, increased timely workflow, and workplace satisfaction from employment feedback with comparison before scribe implementation.

Evaluation/Conclusion: A process evaluation has determined the implementation of a medical scribe in the Dermatology department is with satisfaction for the department and looking for expansion with hiring new scribes for Dermatology and other departments in Princeton Medical Group. Physicians collaborating with a medical scribe enhance (a) higher satisfaction from patients due to more patient-centered care, (b) decreased amount of burnout and errors of providers from a reduced workload, and (c) an increased workflow satisfaction, especially with limitations during the pandemic. More scribes are being hired for Princeton Medical Group to be implemented for more physicians and other departments. The program will be reevaluated next year to determine the satisfaction of scribe implementation for physicians in the departments of Gastroenterology and Obstetrics/Gynecology for Princeton Medical Group.

Internship Abstract

Title: Improving Workflow and Business Development Practices within Fragomen

Name: Hasin Tasneem

Preceptors: Direct Supervisor: Kellie Ferrara, Client Services Manager

Agency: Fragomen, Del Rey, Bernsen & Loewy

Purpose: To identify strategies for growth, create materials for business development and improve upon existing workflows during COVID-19

Significance: Firms need to invest in their business development and marketing department, which handle client development, client service & experiences, and cross-services. Amidst COVID-19, the Fragomen faces an influx of work that is being completed in remote environments, making it difficult to utilize client management software that is tailored towards an in-person work environment. By fostering strategic and creative support for client-facing teams, and improving the existing workflows in place, the firm will be able to increase both client and employee satisfaction, increase revenue, and provide a consistent, strong, branding message.

Method/Approach: A review of existing teams and documents was conducted through the use of SharePoint. The goal was to identify practices already in place, review existing knowledge, and identify gaps where content needed to be created in the two-fold problem of sourcing and developing client relationships. A team consisting of several business analysts, attorneys, and a client service manager was observed to map the existing workflow after a client intake was completed, and conduct new process mapping through Fragomen Connect, the firm's proprietary case management system.

Outcomes/Results: Sample questions were developed for prospective clients. To strengthen existing relationships and improve branding, the "Fragomen Playbook", a toolkit with key messages, resources, and templates that could be used in different scenarios was developed. Documents, resources, and guides were created or edited to be updated and housed on SharePoint for the purpose of keeping everyone in the organization informed and to ensure consistent messaging. Eventually, a training module for client facing teams will be created to detail how to use the new available resources. Additionally, team dashboards will be updated to explain the sub-teams within Business Development and Marketing and the various services that they offer. A temporary workflow map was put into place, specifically geared towards a staff that is mostly working remotely or on rotation.

Evaluation/Conclusion: Due to an influx of work, the "Playbook" and new business intelligence documents have not been publicized. After implementing the training modules, employees need to be surveyed to determine whether they understand the new messaging and client procedures. The temporary workflow put into place has already allowed more than 100 client files to be successfully processed, with only 1 client file being lost, resulting in 99% success. This new workflow needs to be integrated into Connect with the support of the IT team to allow for a transferability of client information during times when there is an influx of work, or a remote/rotating team.

Title: Facebook Intervention Evaluation

Internship Abstract

Name: Daniel Teixeira

Preceptors: Joseph Gallo, MPH, Assistant Research Coordinator

Agency: Rutgers Cancer Institute of New Jersey (CINJ)

Purpose: To compare and examine the impact of two Facebook group interventions and see how often melanoma survivors and their first-degree relatives talk about skin cancer and different health topics.

Significance: An estimated 100,350 adults will be diagnosed with melanoma this year, the fifth most common cancer, in the United States. Side effects may arise in any cancer treatment and temporarily change how a patient feels both mentally and physically. Therefore, it is of the utmost importance to detect irregularities as early as possible and have the option to discuss the treatment that the patients are experiencing. Rutgers CINJ prides itself on its ability to not only care for patients but also aid in their recovery through a variety of ways, including palliative or supportive care. Evidence from physician skin exams, skin self-exams, and sun protection habits will be used to evaluate the effectiveness of a behavioral health intervention that focuses on young individuals who have been diagnosed with melanoma.

Method/Approach: A pre-, post-, and three months post-survey completed by each participant, diagnosed between ages 18-39, that enrolled in the intervention were analyzed regarding physician skin exams, skin self-exams, and sun protection habits. Data for 314 patients were obtained, and of those, 151 patients completed the follow-up survey. Each patient participated in a 12-week long Facebook group that was either related to skin cancer topics or general health and wellness. Intervention messages that were derived from the aforementioned topics were also analyzed to evaluate their effectiveness in improving their habits and allowing them to interact and speak with their family members more about these topics.

Outcomes/Results: Overall, positive results were seen in the trial using a sample size cohort (n=151). For example, questions about the benefits and barriers to physician exams demonstrate that 110 patients (73%) strongly agree that “Those people who are close to me will benefit if I have a physician skin examination for skin cancer”, 30 (20%) somewhat agree, and 11 (7%) neither agree nor disagree. Furthermore, when comparing skin self-examination data, 12 patients (8%) state they strongly agree, 54 (36%) somewhat agree, 25 (17%) neither agree nor disagree, 35 (23%) somewhat disagree, and 25 (17%) strongly disagree when asked if “Doing a skin self-examination would be somewhat difficult as I do not know exactly what I am looking for.” When asked if wearing sunscreen is inconvenient, data depicts that 6 patients (4%) strongly agree, 41 (27%) somewhat agree, 24 (16%) neither agree nor disagree, 35 (23%) somewhat disagree, 45 (30%) strongly disagree.

Evaluation/Conclusion: Indeed, results from the pre- and post-survey illustrate a positive correlation in trying to enhance melanoma survivors and family member’s safe-skin behaviors. Through education, patients now have a valuable new perspective on sustaining health and wellbeing. Counseling, follow-up surveys, and frequent examination serve as ways to improve their satisfaction. The surveys are constantly reworded and changed to maintain peak effectiveness, as well as being submitted annually to the IRB to ensure that the goal is continually being met.

Internship Abstract

Title: Vegan Labelling Laws, Policies, and the BeVeg Trademark Standard

Name: Sarah Winner

Preceptors: Carissa Kranz, Founder and CEO

Agency: BeVeg International

Purpose: To analyze general labeling laws relating to vegan claims and to further develop the vegan standard set out by BeVeg International, a global vegan trademark.

Significance: There is no universal legal definition of veganism. This leaves any company with the ability to stamp “vegan” on a product without legal consequences. As a lawyer-backed and accredited standard, the BeVeg vegan standard will hold companies legally accountable for their vegan claims. The BeVeg standard creates a reliable, accountable, trustworthy, and credible claim. By having all credible vegan certification trademark symbols adhere to a single global vegan standard, the consumer gains confidence in the products they use and vegan claims carry meaning as set out and defined in accredited certification schemes.

Method or approach: To create the BeVeg Vegan Certification Standard, several technical lenses will be combined to create a fully comprehensive standard. The standard must include legal terms, food safety considerations, and the practices and perspectives unique to BeVeg. The first step in creating the BeVeg standard is to create a document that outlines what vegan means to BeVeg. This includes an introduction to what BeVeg is, the mission and importance of the vegan standard, and a general guideline with definitions to be used within the standard. BeVeg is a vegan certification firm, the standard will also detail the certification process from application, to final certification, to renewal. The method to outlining this process is done by using the most updated BeVeg certification policies and guidelines. In order to encapsulate all food safety concerns, a vegan food safety technologist will contribute to food safety technical standards such as cross-contamination. Finally, the standard will be reviewed by the National Accreditation Center (NAC) to be considered for ISO 17067 accreditation. After the standard has been accepted by the NAC, BeVeg will become certified and the standard will be available for publishing. The standard will be consistently updated as needed.

Outcomes/Results: The standard will be delivered to the CEO/Founder and food safety technologist to ensure all technical requirements have been met. The standard will be delivered by our team to NAC via email, where the standard will be audited in accordance with ISO 17067 guidelines. If the standard is approved, BeVeg will become the first and only ISO 17067 accredited vegan certification body. Passing ISO 17067 also allows BeVeg to license its logo to other certification bodies. The standard will also internally provide guidance to staff and contractors.

Evaluation and/or Conclusion: Measurement of the success of the standard will be determined by accreditation approval by NAC. If the standard has been approved by NAC for ISO 17067 accreditation, the project will be a success. Further, if the effect of accreditation creates more business for BeVeg, the project will be especially successful. This can be determined by measuring total sales the year prior to accreditation versus total sales the year after accreditation.

The standard should be reassessed annually, or more often as needed, to reflect any changes that may have occurred. To assess the effectiveness of the standard, BeVeg should conduct a data analysis regarding number of sales pre- and post-accreditation. Another way to test the effectiveness of the accreditation as a result of the standard would be to conduct a survey asking vegans whether they prefer an accredited certification body labelling their products as vegan versus a non-accredited body.

Internship Abstract

Title: Note taking guidelines for new employees to reduce errors

Name: Kimberly Wolfe

Preceptors: Direct Supervisor Mariel Sanchez

Agency: MedPro Systems

Purpose: Create a guide of common mistakes to avoid for new employees

Significance: MedPro Systems keeps track of current health care provider information in a database for pharmaceutical representatives. Incorrect contact information wastes employee time and effort. New employees at MedPro Systems may not understand common mistakes that may add time to the completion of records. By not catching these common mistakes it may have an impact on the reputation of the team. Creating a guide of common mistakes and how to avoid them will help new employees streamline their record entries, and ensure correct information for our clients.

Method/Approach: Between September 2020 and November 2020, mistakes caught by the Quality Assurance Specialist were collected along with the correct type of entry. A number of common mistakes were categorized by most frequent to less infrequent. This was laid out by using a Word document. The list was sent to the Quality Assurance Specialist for review. A number of additional entries were added by the Specialist. There were three categories which held the most common types of mistakes. These categories would consist of specific adjudication errors, note taking errors and general technical errors. By breaking down these categories, a list of common mistakes were identified at the frequency at which they occurred.

Outcomes/Results: The final guide consists of # pages with the following categories: Address mistakes, specialty mistakes, avoiding distractions, note taking, specific adjudication errors, and general technical errors. Each page details what types of mistakes were made and the frequency at which they occurred. The guide also included information on how to correct these errors, along with examples of records that we correctly adjudicated. The guide also consists of ways to avoid these common mistakes in order to reduce the frequency at which the mistakes occur. The guide will help to reduce future errors for new employees. The guide will also outline tips and ways to avoid situations that may cause these specific types errors.

Evaluation/Conclusion: This guide should be revisited annually to make sure it is current. This guide only applies to the AstraZeneca database. MedPro systems contracts with many other pharmaceutical companies, each with their own database, which could also benefit from a similar guide for new employees.

Internship Abstract

Title: 2020 National Caregivers Conference - *The Spirit of Resilience*

Name: Annalee Yacavone

Preceptors: Renata Svincicka, Community Health Manager

Agency: The Family Resource Network

Purpose: To help organize the virtual 2020 National Caregivers Conference by gaining sponsorship, facilitating event promotion, and monitoring success to achieve the ultimate goal of creating a space for caregiver collaboration and education.

Significance: Sixty-three million caregivers across the country work 24/7 to provide care for their loved ones and others. These selfless individuals often become overwhelmed by this immense role and face caregiver burnout. According to a 2020 AARP survey, 26% percent of family caregivers described their situation as highly stressful. High levels of stress can take an immense toll on personal health. As AARP describes, 4 in 10 caregivers experience depression and resentment due to their position. “The Spirit of Resilience” represents the tenacity of these hardworking individuals. Through the speakers, panels, and various sessions, participants and families will be able to educate themselves on how to improve their care for themselves and their loved ones, especially during the added pressures of the current pandemic.

Method/Approach: The Family Resource Network brings together a vast array of healthcare organizations across New Jersey. Using these resources as a stepping stone into other communities and coalitions to gain a broader audience was crucial to conference success. This process included reaching out to healthcare organizations across New Jersey and the surrounding areas. Using resources from research and previous contact sources from within the network, over fifty organizations were contacted to gain sponsorship and attendees. These ranged from pharmaceuticals to nonprofits, private practices, universities and more. Working on communicating with potential sponsors and promoting this event to caregiving/educational communities helped to achieve the purpose by allowing for more event opportunities and a larger audience. In addition, by creating a post-event survey and press release, event success was monitored to facilitate further purpose and collaboration beyond the conference.

Outcomes/Results: The conference gained the support of over 80 attendees, 21 speakers, and 6 sponsors. With this, caregivers experienced two days of films, keynote speakers, and break-out sessions—these covered topics such as cannabis treatment, self-care, patient portals, lobbying, and more. By gaining a broader audience and larger financial sponsorship, caregivers were better able to collaborate, gain new knowledge, and take time to care for their own health needs. As a whole, attendees were satisfied with the quality of the event. However, some areas of improvement were better online accessibility, better event descriptions, and more opportunities for viewer participation.

Evaluation/Conclusion: In terms of sponsorship, through promotion there was a successful amount of contributions to satisfy the requirements of the conference. Although lower than prior years, the over eighty attendees and twenty-one speakers gained through the local outreach were considered a success given the current pandemic’s limiting circumstances. For the future, based on the speaker and attendee response, there could be improvements made in accessibility, including better distribution of resources or a different virtual platform. Additionally, whether in-person or virtual, there could be more space for session descriptions and attendee participation to fulfill the conference’s purpose. This could come in the form of event guidebooks, Q&A sessions, breakout rooms, and more.

Internship Abstract

Title: SARS-CoV-2 Laboratory Response in Manufacturing and Testing

Name: Eva Zaydman

Preceptors: Project Preceptors: Vjollca Abazi, Director of Client Interface
Emily York, Manager- Toxicology Department

Agency: Chemisys Laboratories

Purpose: To develop a stable plan and system for Chemisys Laboratories during the SARS-CoV-2 pandemic for manufacturing test kits, performing tests systematically, and reporting results to state health departments.

Significance: As of the beginning of the SARS-CoV-2 pandemic, there have been a total of 7,645,262 verified cases and 210,232 total linked deaths within the United States (CDC, 2020). Since this virus can cause mild to severe symptoms similar to the flu as well as complications in special populations, the importance of reliable and efficient testing is required to document and maintain health within the population. Chemisys Laboratories, since the beginning of the pandemic, has striven to support the testing needs of nursing homes throughout the country and local healthcare offices in New Jersey. During this time, the laboratory has maintained a guarantee for 48 hour turnaround time for critical patients, helping to quarantine those that have tested positive for SARS-CoV-2 efficiently. As the fall season begins, transitioning from the summer into the “flu season” indicates a greater need for testing to determine the type of illness; additionally, many states have created individual mandates requiring a certain frequency of testing for nursing homes. Due to the increased need for testing, developing a stable manufacturing and reporting method is critical for sustaining a low number of cases.

Method/Approach: The initial steps to adequately address the national shortage of testing kits required in-house manufacturing. This process included the sustained production of VTM (Viral Transport Medium) as per the CDC’s guidelines, labeling of containers, and assembly of the final product. Additional adjustments to the initial manufacturing plan (rotational shift schedules) became necessary to compensate for the increased amount of testing due to state mandates and illness spikes. With the development of a surplus supply of testing kits, the focus shifted towards reporting results to state health departments. In this process, EMR bridges between the internal laboratory database and health department databases became crucial as the volume of testing increased. The addition of four EMR bridges to the manual reporting system increased the notification speed of results to health departments.

Outcomes/Results: Over the course of each day, the rotational system allowed for the manufacture of 1,500 SARS-CoV-2 test kits per day beginning from October 1st, 2020. Prior to that date, manufacturing volume ranged between 700-1000, preventing adequate testing to all facilities that required it. A stable amount of test kits created per day allows for the successful fulfillment of nearly all supply orders from nursing home facilities; this allows the facilities to uphold the requirements of various state mandates regarding precautionary testing.

Evaluation/Conclusion: Success in this program includes maintaining all current testing needs of nursing home facilities and local health offices going into the winter season. Given the current fluctuations of testing requirements and the unpredictability of future trends of this disease, a surplus of testing kits is required to ensure all requirements are met.

Internship Abstract

Title: Residents Assessment of Recreational Activities

Name: Laiba Zeb

Preceptors: Direct Supervisor: Marina Forlenza, Supervisor of Recreation
Director of Pine Acres: Marvalet, MD, Medical Director

Agency: Pine Acres Healthcare Rehabilitation Center

Purpose: To evaluate the effectiveness of various recreational activities at Pine Acres Nursing Home Healthcare and Rehabilitation Center.

Significance: Depression is a well known mental illness many individuals struggle with. This illness is especially prevalent among nursing home residents. A study conducted on depression rates in nursing homes found 48% of residents suffered from depression (Morley, 2010). Literature demonstrates depression rates in nursing homes are three to four times higher than in the community-dwelling elderly (Jongeneli, 2004). Pine Acres Healthcare and Rehabilitation Center provides patients with recreational aids in hopes of reducing these rates. Evidence-based interventions will provide the patients with the proper recreational activities in order to create a favorable environment that residents can evaluate.

Method/Approach: A literature review demonstrated inactive elderly individuals had higher depression scores than more active elderly individuals (Lindwell, et al., 2007). This inspired the idea to incorporate more physically and mentally stimulating activities at Pine Acres. One activity recently implemented in October was wheelchair exercises. Exercises were done 1-2 times a week and lasted for 40 minutes. Exercises included 20 chest expansions, 2 side arm raises, 10 dives, 20 punches, 20 knee lifts, 20 ankle circles, and 20 seated leg lifts, with 2 minute breaks after each exercise. Another activity introduced was "Guess that Tune." This activity was implemented in October. "Guess that Tune" was conducted 1-2 times a week and lasted for 60 minutes. During the activity residents formed a circle while taking turns picking a song that everyone else had to guess the name of. This enabled the creation of a stimulating environment everyone could participate in. Program evaluations were given to participants after these activities were conducted.

Outcomes/Results: Post survey results (n=10) found ninety percent of the participants felt engaged while playing "Guess that Tune" and eighty percent of the participants felt better after the activity was completed. Eighty percent of participants felt engaged during wheelchair exercises and seventy percent felt better after the activity was completed.

Evaluation/Conclusion: To determine the overall efficiency of the activities department, it is necessary for the Residents Council at Pine Acres to perform an evaluation. The President of this council is chosen by the residents themselves and consists of a board of individuals who reside at the facility. The evaluation takes place once a month and the board will voice their concerns to each department including the Activities Department. Current results yeild wheelchair exercises and "Guess that Tune" as favorable by the residents. Showing that the Activity Department is on the right track in providing effective recreational activities.

Internship Abstract

Title: COVID-19 Contact Tracing Middlesex County Health Department
Name: Angelo Zegarelli
Preceptor: Colleen McKay Wharton; Rutgers COVID-19 Contact Tracing Program Supervisor
Agency: Public Consulting Group

Purpose: To mitigate the spread of COVID-19, by identifying close contacts of confirmed positive cases, and ensuring they can isolate or quarantine effectively.

Significance: To help keep the Middlesex community safe from COVID-19, we use data gathered from confirmed positive cases in the county to monitor, assist, and trace individuals who are infected or suspected of being infected with the virus. We have lost 270,000 people to COVID-19 in the United States and it has infected almost 10 million. In New Jersey alone we have lost over 17,000 and almost 350,000 have been infected. In Middlesex County, we have so far lost over 1500 individuals to this disease.

Method/Approach: My approach is to identify and engage with all contacts of positive cases, which are given to the department using test results sent in by testing stations and doctors' offices, which is required of them. I have employed the skill of effective communication, considering by law, people are not required to give us information, and some are hesitant. I do this by showing empathy toward the patient, as well as explaining the importance of the conversation, highlighting that it helps make our communities and families safer. I also monitor patient's symptoms, and pre-existing conditions, to identify if they are high-risk. I also help people to quarantine by making sure they have enough food/medical necessities, and assign them to social support if needed. While they are quarantined I follow up with them on the 7th and 14th day, to identify if symptoms arise, at which point they would need to be converted to a "person under investigation". Prior to the current spike I was averaging 0-3 contacts per day, now I can have up to 7. I am also on call daily and receive anywhere from 0-10 incoming calls per day. This is also subject to change depending on how many tracers are working on a given day.

Outcomes/Results: In September the total new cases per day were around 200. This is a significant decrease from April and May which almost reached 4,000 new cases per day. There were around 300 deaths per day reported from April to May. Today, December 2nd we had over 4000 new cases, a 12% increase over the past 2 weeks, along with 56 deaths today. I have traced over 100 people between those that I am assigned to, their contacts, as well as other tracers contacts when they are unavailable. Health Departments in New Jersey collectively have traced hundreds of thousands of contacts, while my department alone has traced thousands.

Evaluation/Conclusion: We continue to deal with and prepare for another expected rise by having more contacts assigned per tracer per day, as well as the Health Department hiring more tracers to join the team. We must make sure to contact suspected cases earlier, and increase the depth of our interviews to make sure no information falls through the cracks. As some of the trajectory of the virus with regard to its spread and death rate are affected by policy decisions, we continue to fulfill our role to the best of our ability, with the number of contacts we receive. By identifying as many contacts as possible early, we aim to keep the reproductive rate of the virus low, and try to keep the number of new cases from rising. This will allow us to monitor spread more effectively, hence lowering level of transmission and death.

Internship Abstract

Capstone Projects

Internship Abstract

Title: Healthcare Access Transparency for Minority Groups in New Jersey

Name: Autumn Brown-Kelly

Purpose: To address patient care and the efforts to improve the quality, cost, and accessibility to adequate healthcare plans that are best suited to communities.

Significance: The New Jersey Health Department reported that their goal is to increase the number of minority individuals with primary care providers which will ultimately promote better health outcomes. There is little to no progress being made towards helping those individuals receive affordable healthcare. Healthcare Centers are the main facilities that serve the uninsured and underinsured, as well as patients with Medicaid, Medicare, and private insurance. Each year, more than 500,000 patients make more than 1.5 million visits to the centers. The Health Department reported that there is a proportion of New Jersey children (ages 0 to 18) at or below 200% of the federal poverty level who did not have health coverage was 18% in 2016. The reason for the high numbers of uninsured members, in general, is because of social and economic factors that affect coverage. The transparency of healthcare access would create better trust in not only the healthcare system but the relationship between providers and consumers.

Method/Approach: A study of 1664 U.S adults between the ages of 18-64 who paid out of pocket for their last healthcare encounter showed that few knew about the different options of services. Consumers need quality data alongside price information to make smart shopping decisions. It was reported that only two-thirds of plans share provider performance data with its members and with half of those integrating quality data into their price-estimator tool. It also forces consumers to be proactive and learn how to shop or think about healthcare as a marketplace. Also, providing alternative payment models that require providers to take on financial risk requires patients to ask their doctors questions about the cost of ordering this test or whatever services they receive.

Outcomes/Results: Deductibles are rising in which it should encourage patients to shop and do research to potentially slow down U.S. healthcare spending, which rose 5.8% in 2015 to \$9,990 per person. But the amount of price data and quality data has not increased to match. When that happens, it will create more of a consumer marketplace, where patients are more likely to shop for their care and are more likely to seek out the tools these entrepreneurs are providing.

Evaluation/Conclusion: Transparency is critical to healthcare quality and the basic improvement strategies are applied to track and enhance transparency practice. Health plans have insurance designs that incentivize consumers to use high-value in-network providers – a strategy that is helping to create awareness and price sensitivity among the majority that are healthy consumers and can actually pay for it. The goal should be to exclude low-value providers, control pricing, and make insurance available to everyone.

Internship Abstract

Title: Food Insecurity among Female Veterans in East Orange

Name: Clare Choi

Purpose: To analyze the disproportionate rate of female veterans in East Orange, New Jersey who are facing food insecurity and develop an assistance program to help this group acquire stability and an adequate amount of food in their daily lives.

Significance: In East Orange, New Jersey, there is an estimated 220 female veterans. In this city, there is a significant number of veterans who are disabled, homeless. Some are unaware of the benefits and accessible resources around their area crafted for them. Being food insecure may bring determinantal mental and physical conditions to anyone's health. There are limited resources available dedicated to female veterans compared to their male veteran counterparts.

Method/Approach: The Data was collected from the 2019 U.S. Census and the 2019 World Population Review. Information provided contained the average income for families, education status, race, and gender.

Outcomes/Results: In various scholarly articles, surveys, and statistics, revealed many barriers that prevent this population from receiving the proper care they need to live a healthy lifestyle. One major issue appears to be unemployment or low-paying jobs that prohibit individuals from obtaining the proper nutrients stated in the Seligman article. An estimated amount of 80% of veterans did not complete college and more than 10 percent of veterans are faced with poverty according to the World Population Review. Studies have shown that women veterans have more risk factors for food insecurity compared to their male veteran counterparts.

Evaluation/Conclusion: Women who come back home after serving their country have limited resources. Food insecurity is relevant to those who are homeless or inadequate housing. Most veterans in this situation rely on others to provide food for them. Most women depend on soup kitchens and food pantries, friends or family, and government assistance stipends, also known as food stamps, to receive their food. The consequences are potentially life-threatening but can simply be prevented by promoting, supporting, and allocating necessary funds to those in need.

Internship Abstract

Title: Barriers That Can Affect Access To Health Care within Rural Areas

Name: Angelique Clark

Purpose: To show the healthcare inequalities and barriers that individuals from low-income rural communities in the United States face despite the expansion of affordable healthcare coverage.

Significance: The Affordable Care Act, otherwise known as Obamacare, has made care more affordable for many lower-income patients since March 23, 2010 through cost-sharing reductions and tax credits on the health insurance marketplaces and through Medicaid expansion. Despite this progressive effort, there are still many issues regarding access to healthcare for low-income Americans. Low-income Americans who live in rural areas have a much harder time with access to care than ones who live in more urban areas. Some of these barriers include: transportation, mistrust of the healthcare system, inadequate health education, trouble affording copays, waiting lists for care, and few providers who accept their health insurance. Low-income individuals who face more than one of these issues at once can be experiencing intersectionality.

Method/Approach: Data was collected from articles and journals found through Rutgers Libraries databases. Topics searched include: transportation methods for patients, Medicaid, health inequalities, health education, triple aim and low-income patient satisfaction. Comparisons were then made between urban areas and rural areas in America, as well as Canada's Universal Healthcare and America's Affordable Care Act.

Outcomes/Results: Twenty articles were used in this study. Major findings included the following themes. Seven articles listed transportation as a major barrier for receiving care. One article discussed telemedicine during the pandemic. Six articles on the Affordable Care Act (ACA) were used. Rural respondents reported that they must travel an average of almost twelve miles to find a doctor they could use, compared to less than seven miles among respondents in metropolitan areas. Findings show that Canada's healthcare system, unlike the United States healthcare system, does not tie health insurance into whether or not you have a job. Canada's Universal Healthcare system is publicly funded and beats the U.S. in overall quality ranking.

Evaluation/Conclusion: Retrieving information on the Affordable Care Act was not difficult due to the influx of information released about it. It was difficult to access information on initiatives that have been implemented for people who live in rural areas and do not have access to transportation. In the future, more studies on barriers that affect low-income individuals, transportation methods for people in rural areas, and the downsides to the Affordable Care Act should be done.

Internship Abstract

Title: How to Help the Elderly in a Time of Crisis

Name: Jonathan Eagle

Purpose: To identify an underlying issue within elderly homes across the United States. This problem of emergency preparedness is especially important now because of COVID-19. Without well thought out emergency preparedness plans, the lives of people are put at risk, especially the elderly who are already more vulnerable as is.

Significance: According to the Center for Disease Control, there were 15,600 nursing homes in the United States as of 2016. There were 1.7 million licensed beds for about 1.4 million people in elderly homes during the same year. What's going on with the other 300,000 beds that aren't being used? Can that money/space can be used for something else? There's also the fact that according to the CDC, 69.3% of nursing homes have for-profit ownership. This means that when worse comes to worst, like an emergency, the owner might think about their pockets more than the health of their residents.

Method/Approach: The major tasks for this project predominantly revolve around research. The first task was to call local nursing home facilities to see what their current emergency preparedness plans were. From there, the plan was to look over the literature, including medical studies, to see if any pre-research predictions were correct. Next came comparing information from different reputable sources like the CDC and AARP. Federal and state data was used for statistical purposes.

Outcomes/Results: There are many problems that cripple the nursing home industry and its implementation of emergency preparedness plans. The main problems found through the research of this essay include: The cost of nursing home care being too high, the salaries of nursing home caregivers being too low, and how the federal and state governments use their money.

Evaluation/Conclusion: Before the research of this essay, it was predicted that the main problems of nursing homes and their emergency preparedness were money related. In particular, the costs of nursing home care service was found to be too high, while the wages of the employees were found to be too low, which impacts the type of care they give to their patients. The research collected by this essay proves that the recommendations provided in the essay are logical and truly needed for the nursing home community.

Internship Abstract

Title: High Maternal and Infant Mortality Rates In Black Women In New Jersey

Name: Monica Gombas

Purpose: To analyze high maternal and infant mortality rates in Black women in New Jersey that are linked to systematic oppression.

Significance: Between 2011-2016, there were 42.4 deaths per 100,000 live births for Black non-Hispanic women in the United States. Between 2016 and 2017, the infant mortality rate for Black babies was 9.2 deaths per 1,000 live births in New Jersey. Black women are exposed to more risk factors such as poverty, low socioeconomic status, limited access to prenatal care, and poor physical and mental health. Through the Healthy Women, Healthy Families Initiative, six organizations in New Jersey received funding to provide community support and refer services to high-risk populations such as pregnant women and postpartum mothers.

Method/Approach: New Jersey was awarded a \$4.3 million federal grant in 2018 to split between six community-based programs to improve health outcomes among black infants and mothers. New Jersey's Department of Health is devoting \$450,000 to implement a doula program for municipalities with high Black infant mortality rates. A total of \$280,000 was given to the Statewide Parent Advocacy Network (SPAN) to implement a doula program in Newark and \$120,000 was given to Children's Futures in Trenton to also implement a doula program. In order to document the effectiveness of these doula pilot programs, an independent evaluator was given \$50,000. Their job is to see how effective are the doula programs in reducing certain labor and birth outcomes such as cesarean births.

Outcomes/Results: The Murphy Administration has proposed several project activities and proposed project structure will depend on the needs of the community. The specific outcomes that need to be addressed include: decreasing the prevalence of sexually transmitted infections for Black, non-Hispanic women by 10% annually, decreasing prevalence of unintended pregnancies among Black NH women by 20% annually, increasing the percentage of Black NH women who receive adequate prenatal care by 10% annually, decreasing the percentage of Black NH women delivering preterm (less than 37 weeks) babies by 10% annually, and decreasing the percentage of Black NH women who deliver low birth weight (less than 2500g) babies by 10% annually.

Evaluation/Conclusion: All grantees will be required to incorporate Quality Improvement (QI) activities to critically review the effectiveness of chosen strategies using a Plan-Do-Study-Act (PDSA) methodology. These QI activities should lead to adjustment of improvement strategies as needed to optimize their effectiveness. Additionally, grantees will be required to participate in NJDOH evaluation of the Health Women, Healthy Families initiative. The grantees must describe the mission and location of the proposed project as well as an organizational chart that depicts the location of the project. Grantees also must identify the proposed target population(s) and service area(s) and describe their needs and health disparities.

Internship Abstract

Title: Quality of Healthcare for Low Income Individuals

Name: Olivia Hellerich

Purpose: To analyze the relationship between a person's ability to pay for care and the quality of the care they receive. This will determine and expose healthcare inequalities people face.

Significance: Oftentimes many people cannot pay for their medical care. Even with the Affordable Care Act being passed in 2010, people with low income often struggle to pay for medical treatment. Low income individuals face many struggles in affording the care itself, how to get the care, and how to get treatment in a timely manner. Evidence will show how people of low-income are not getting fair treatment due to poor quality care, lack of accessible care, and also care that is too expensive.

Method/Approach: A retrospective study was completed on how income relates to access to care, cost of care, and quality of the care they receive. Data was collected from many sources such as the CDC, the Journal of General Internal Medicine, and the Kaiser Family Foundation, which display how the care of low-income individuals was affected. Data was used to see if low-income individuals receive worse care. Next it was shown if they have access to care, geographically and because of lack of insurance. Lastly, it was used to see if low-income individuals could afford care, cost of medication, and preventative healthcare.

Outcomes/Results: Fifteen articles were used in this study. Of these articles, eight articles argued that low income individuals face many barriers when receiving healthcare. An article from the Kaiser Foundation in 2019 found that 35% of individuals who make less than \$40,000 a year have difficulty affording prescription drugs. Another article from Quinnipiac Health in 2019 found that at least eighty-five of the nation's rural hospitals that mainly serve a low-income population have closed. The country's largest metropolitan areas have many doctors leaving lower-income areas even though they have a greater need. Lastly, an article from DATE in JOURNAL discovered that both doctors and patients stated how they wished they had more time spent together because of an insufficient amount of doctors serving these patients and also doctors spending time on filing Medicaid reimbursements.

Evaluation/Conclusion: In conclusion, fifteen articles offered support that low-income individuals face many disparities when it comes to receiving quality healthcare. They often do not have access to care due to location or lack of insurance. They also often cannot afford medication. Medical treatment, or preventative treatment. Lastly, patients and doctors agreed the quality of care is worse for low-income individuals. An idea to fix the issues that are present is to implement community wide formal infrastructure or collaboratives in more United States cities and towns to help individuals not only get the treatment they need, but to stay up to date on vaccination and testing, and get prescription medication at an affordable cost. To measure the success of proposed measures to improve these results the suggested plan will need to be implemented and given adequate time to improve care for low-income individuals.

Internship Abstract

Title: Treating Gun Violence As A Public Health Issue

Name: Ibtihaj Khan

Purpose: The purpose of this paper is to analyze gun violence in the United States and propose policy interventions to treat it as a public health issue and decrease the death rate due to gun violence.

Significance: According to the CDC, in 2017, 39,773 people died from gun-related injuries in the United States (Pew Research Center). suicide accounts for the majority of gun-related injuries at 60%, followed by homicides at 37%, and the remaining 3% involved law enforcement, unintentional, or undetermined circumstances (Pew Research Center). Mental health concerns should be greatly considered in terms of the ownership and usage of guns, regardless of the agency. Additionally, due to the Dickey Amendment, the Center of Disease Control cannot effectively research gun violence in a way that could advocate for policies decreasing deaths due to guns. Health based-research is necessary in understanding the gun violence epidemic that is plaguing the United States. Policy interventions will address the need for treating gun violence as a public health epidemic and the need for policy changes to decrease deaths due to it in the United States.

Method/Approach: This paper used literature from sources such as the New England Journal of Medicine, Pew Research Center, the American Psychological Association, the American College of Preventive Medicine, the National Constitution Center, the American Journal of Law & Medicine, the Annual Review of Public Health, Public Health Reports, The Journal of the American Medical Association, NPR, and other reviews of literature and credible news sources that discuss the gun violence epidemic as a whole, from an understanding of prevention, intersectionality, and risk factors. Mental health policies, gun control legislation, and gun control history were some key terms used to search for literature especially as it relates to suicide. Articles discussing the polarity regarding the topic of gun violence were also reviewed, especially in the context of COVID-19, the 2020 U.S. Presidential election, and economic recession.

Outcomes/Results: Overall, leading agencies in medicine, law, psychology, and public health have agreed upon the following policy recommendations: “expanded background checks, restrictions on assault weapons, mental health services, increased research funding, expanded gun storage laws, [and] physician counseling allowance” (Strong et. al, 2016). Creating policies from a public health law context would be useful as public health law seeks to find “the appropriate balance between what actions the state is authorized to take in order to protect public health and safety, and what limitations are placed on state authority due to individual rights” (Ulrich, 2019).

Evaluation/Conclusion: Further research is required to obtain a better understanding of associations between risk factors and firearm suicide. Some paradigms that did implement universal background checks, that included disqualifying mental health events, saw decreased suicides rates associated with it. In the future, policies based in public health law should make sure to include community interventions, like gun shop owners bringing up suicide awareness and gun storage protection measures, to both depoliticize gun violence and find effective strategies to decrease it.

Title: Effect of COVID-19 on Nursing Homes

Name: Memunatu Leigh

Purpose: To identify the scarcity of Personal Protective Equipment and employee shortage within the healthcare system and its effects on both employees and residents in nursing homes.

Significance: According to the Washington Post, more than 15000 homes nationwide have been affected by Covid-19. Studies have indicated the number of confirmed cases among health care workers in Italy, Spain, and the United States is 10%, 20%, and 3%, respectively. According to the Center for Disease Control and Prevention Covid-19 cases around the world are 42 million and 1 million deaths. The United States presently has 12 million cases and 250 thousand deaths as of November 19, (2020). The foundation for research on equal opportunity states that 42 % of United States Covid-19 deaths occurred in nursing homes and assisted living. Protecting Health Care Workers is of paramount importance to maintain continuous patient care and keep healthcare systems functioning.

Method/Approach: A literature review was conducted to understand the correlation between Covid-19 and nursing homes and its effects on both residents and healthcare workers. According to Stall (2020) et al “Severe Covid-19 infection occurs more commonly among older adults and those with underlying chronic conditions”. According to Kemensi et al (2020), recent epidemiological data from Wuhan suggests 5.1 times higher risk of dying in symptomatic elderly patients aged 60 years and above. Due to the fact that nursing home residents are over 60 years old they are considered the most vulnerable. Another found the result was the relationship of underpaid nurses to the rise of Covid-19 cases in nursing homes, which, at the end, required caregivers to obtain more than one job. This resulted in the rapid spread of the virus .According to McGarry, percentages of Personal Protective Equipment shortage account for 20% while N 95 shortage was 13% on the first study done. On the other hand, staffing shortages with nurses’ aid with the highest percentage of 20%. (McGarry, 2020).

Outcomes/Results: Based on all the information gathered nursing homes account for the highest Covid-19 spot in the nation. The way the virus is being handled has led to the downfall of one of the places America holds dearly. According to the Center for Disease Control and Prevention, the United States accounts for 15,600 nursing homes with 1.3 million residents. (Harris Kojetin, 2019). Safe guiding the nursing home requires measures that can protect residents and healthcare providers. Also, according to Stacey (2019). “Nearly three-quarters of registered nurses working in nursing homes said they had to leave work unfinished because they didn’t have enough time or resources. Three out of 10 had high levels of burnout or were dissatisfied with their jobs”.

Evaluation/Conclusion: COVID-19 has challenged the world health system, especially America. This global pandemic has cursed tens of thousands of deaths and more than three million infections, with health officials predicting many more to come with in-depth insight into Covid-19 and how it has affected nursing home residents and workers. Surely, America has to do better when it comes to healthcare and making sure the aging population and healthcare workers get all the adequate resources needed to combat similar epidemics. Covid-19 can be a lesson learned from our broken healthcare system and finding ways to fix our healthcare system is of public emergency for future generations. After having an in depth insight into the given problem. Providing healthcare workers with incentives, higher pay, paid sick leave. Advance planning and good leadership will help remedy what we are experiencing as a nation.

Internship Abstract

Title: Containment strategies of COVID-19

Name: Jake McBride

Purpose: To define and analyze which methods of containment of Covid-19 are more effective than others.

Significance: This capstone researched various methods of containment to prevent the spread of Covid-19. Covid-19 has taken the world by storm due to its high infection rate, the fact that it is highly contagious, and that it is killing so many people at such a rapid rate. If something is not done soon more and more people are going to suffer and pass away from this terrible virus.

Methods/Approach: In conducting research for my paper I found sixteen viable sources to support my research. While researching I used several different keywords and sources to acquire references. I used keywords such as, "Covid-19, Covid-19 Containment, How to beat coronavirus, mask wearing and Covid-19, country compare Covid-19, COVID-19 Vaccine, Vaccines, COVID-19 and businesses, Health and COVID-19, COVID-19 and food insecurity, China and Covid-19, and COVID-19 assistance." All of my sources were acquired via Google Scholar.

Outcomes/Results: The best method of containment of the virus would be forced lockdowns allowing those with the virus to run its course and for those who do not have the virus to be protected from those with it. This idea was utilized in China. Experts say America couldn't handle it. In China they were patrolling people with drones and scolding noncompliant people for being out of their homes and not wearing masks. Other parts of China were using facial recognition from cell phones registering people as high/low risk and determining whether or not they were allowed to be in certain public places. The next best practice is wearing approved masks to prevent the spread of germs and social distancing. Research showed through graphs and charts that the percentage of people who were wearing masks all across the country has been on the rise since midsummer when COVID-19 cases made a decline. While these methods are effective for preventing the spread of the virus there is always going to be a public backlash in the U.S. An example of a country that truly implemented some of these methods is China, where there has been a decline in the amount of cases.

Evaluation/Conclusion:

Overall, through research the findings are that the world was not prepared for something as serious as Covid-19, and when it comes to methods of containing it wearing a mask, staying six feet apart, and only leaving the house when necessary can help. If implemented properly these methods will end the spread of this virus.

Internship Abstract

Title: Mental Health Awareness and Social Media Presence during COVID-19

Name: Shellan Meek

Purpose: To raise awareness about mental health issues and help others to identify with mental health issues, specifically anxiety and depression, during the COVID-19 pandemic.

Significance: According to the Kaiser Family Foundation, mental health conditions have increased greatly in the United States alone. One in five people (47million) in the US reported having mental health illness and 11 million adults reporting thoughts of suicide in the past year. Results from a KFF Tracking Poll conducted in March, showed that 32% had experienced a negative impact on their mental health due to COVID-related stress. In mid-July the percent increased significantly to 53% of adults in the United States. Through education on mental health awareness individuals can seek different methods and ways to cope. Providing information regarding how to recognize when an individual is undergoing mental health attacks such as anxiety and depression is vital to one's mental health.

Method/Approach: Participants from three social media platforms responded to various posts made to education on symptoms of anxiety and depression. Posts include polls, articles from previous studies, destigmatizing myths and common beliefs, spreading information to resources, and material based on research. Instagram posts were made at least three times a week, Twitter was two, and Facebook was two. Responses were recorded from likes, comments, reposts, shares, and retweets.

Outcomes/Results: In response to polls on Instagram, 78% of people identified with having symptoms of anxiety and 22% did not. Results from polls showed that there was a fair amount of people who can benefit from the study. People are interested in discussing methods to cope with their symptoms of anxiety and depression. Identifying with mental health issues are also very important considering that there psychological warfare present during this time period. Concerns do not only lie with maintaining physical health but the state of an individual's mental health is also important.

Evaluation/Conclusion: It is just as important to have addressed mental health concerns during the COVID-19 pandemic as well as our physical health. A combination of fear that stems from potential threats corona poses to health and dealing with outcomes of this pandemic has created a great toll on the multiple populations. This proves true especially the for young adults, Hispanics, blacks, and essential workers. Essential workers have experienced being overwhelmed with patients and direct contact to patients. Being able to identify minority groups such as Black and Hispanics, who are more susceptible to mental health conditions and unhealthy coping mechanisms can help raise awareness to implement mental health solutions. This may include creating greater accessibility to treatment for more effective means of clinical diagnosing.

Internship Abstract

Title: The Impact of Health Literacy on Health Outcomes and Mortality Rates

Name: Nedgie Pierre

Purpose: To identify the role that healthy literacy plays in health outcomes and how it affects mortality rates across different races in New Jersey.

Significance: Adequate health literacy allows patients to make well informed decisions regarding their health. Lack of health literacy can pose a threat to one's health because they lack enough understanding to take the proper precautions or preventative measures to safeguard their health. Some factors that affect one's ability to comprehend and apply basic health information include socioeconomic status, education, age, ethnicity, and disability. When people are given difficult information to process on their own, that creates health literacy issues.

Method/Approach: To gather information regarding health literacy, Google Scholar was used as the primary search engine for this research paper. While seeking information, health literacy provided an abundance of information however, to pinpoint specific areas, using the word "mortality rates" proved to display a noticeable amount of information that was much more informative. In addition to mortality rates; names of specific countries, patient satisfaction questionnaire/survey and chronic illnesses were words used to obtain more applicable articles. In regard to the dates of the articles, an attempt was made to filter out articles that were more than four years old. However, in doing so, the amount of information received was inadequate. Therefore, by customizing the range of data from the year 2010 to 2020 there was a larger variation of information pertaining to health literacy.

Outcomes/Results: Based on the research gathered, it is evident that socioeconomic status and age are the two factors that are most likely to affect an individual's health literacy levels. Within all of the articles that are included, they all mentioned that health literacy is an area that needs to be researched more. Some studies showed insufficient findings due to lack of patient participation. There was not a significant variation in health outcomes across different countries. The biggest differences were the level of importance that some countries placed on improving health literacy, as opposed to some countries that did not recognize it as a major public health concern.

Evaluation/Conclusion: Statistically, illnesses and diseases such as diabetes, heart disease, and cancer, are far more fatal in African Americans compared to other ethnic groups. The reason for this is partially due to socioeconomic factors that include the lack of community resources, food deserts, and graduation rates. Initiatives that are being taken to increase health literacy (in parts of the United States of America) include, but are not limited to, initiatives such as Million Hearts (which addresses how illnesses disproportionately affect ethnic groups), data collection to monitor conditions that may affect health outcomes, and connecting people to doctors, nurses and community health sectors to encourage regular medical visits. In countries around the world, some illnesses disproportionately affects ethnic groups much more than others. Other countries have taken similar initiatives that work toward increasing education and accessibility to health related resources.

Title: Examining South Korea's Strategies for Combating COVID-19

Name: Cho Won Seo

Purpose: To analyze the factors of successful management of COVID-19 in South Korea and propose recommendations for other countries to reduce the impact of the outbreak.

Significance: In the beginning of 2020, the world saw a new coronavirus emerge in Wuhan, China, which drastically changed the lives and migration patterns of millions of residents. The outbreak of severe acute respiratory syndrome coronavirus 2 is challenging the global healthcare system, with 48.3 million confirmed cases and more than 1.23 million deaths as of Nov 6, 2020. Because specific treatments for COVID-19 are not available, the risk of cluster infection is intermittent and can be viewed as continuing to exist throughout the outbreak. Researchers at the University of Florida compared the responses to the epidemic in the two democratic republics of South Korea and the United States, showing distinct differences in public health strategies and a surprising difference between cases and deaths from COVID-19. After adjusting for the 6.5-fold difference in the population, the US suffered 47 times more cases and 79 times more deaths than South Korea. This evidence indicates a gap in understanding the importance of early detection and containment.

Method/Approach: The data of COVID-19 in South Korea were extracted from publicly available sources. This capstone project was conducted by examining the medical studies related to COVID-19 through PubMed with online review, articles, and journals. Twenty articles were identified and all were used in this project.

Outcomes/Results: The identified strategies include: early awareness of threats and rapid activation of national response protocols led by national leadership, mask compliance, establishment of rapid diagnostic ability; expanding measures to prevent the spread of the community, classification and redesign of treatment systems, and mobilization of resources required for clinical treatment. Nine out of 20 articles indicated that the most important strategy was early activation of national response protocols. Eight out of 20 articles referenced indicated that mask compliance as the most crucial factor. Three out of 20 mentioned South Korea's on-time test which allowed the government to identify, locate, and isolate the infected person.

Evaluation/Conclusion: During the first two months of the COVID-19 pandemic, the Republic of Korea had the second-largest number of cases worldwide, but it has become a promising case for how to best manage a pandemic as it has been able to dramatically lower the incidence of new cases and maintain a low mortality rate. Extensive testing, mask compliance, close-tracking, and mandatory quarantine will serve as effective strategies to (a) reduce the risk of spreading the novel coronavirus, and (b) maintain a low mortality rate. Ongoing monitoring of COVID-19 precautions will be undertaken to ensure continued improvement in the public health crisis.