# RUTGERS

Edward J. Bloustein School of Planning and Public Policy



**Title:** Evaluation of AMARD&V: Healing Through the Arts Program

Name: Huseina Abbas

**Preceptors:** Mariam Merced, Director; Elaine Hewins, CSW, DVS, Domestic Violence Education

and Awareness Program Coordinator; Yesenia Hernandez, Program Coordinator

**Agency:** Community Health Promotions Program at Robert Wood Johnson University Hospital

**Purpose**: To analyze satisfaction of program participants and to then suggest improvements to the program curriculum based on evaluation of results.

**Significance**: One in three U.S. adolescents is a survivor of physical, sexual, emotional, or verbal abuse from a dating partner. Victims of teen dating violence (TDV) are significantly more likely than non-victims to use drugs, smoke, or drink, leading to detrimental health effects (Center VAWC, 2014). Poverty has been shown to increase risk of TDV perpetration and victimization (CDC, 2016). New Brunswick has a large population of disadvantaged youth and may have an increased risk of TDV since in 2015, 34.7% of the population lived in poverty (Census Bureau, 2015). An evaluation of the Artists Mentoring Against Racism Drugs and Violence Expansion Program, which empowers students to become TDV prevention ambassadors, will enhance program curriculum and effectiveness.

**Method**: A survey was devised and distributed to assess satisfaction of program participants and evaluate whether program goals were met. Questions were incorporated from validated instruments and other assessment tools used by youth programs. The group-administered survey comprised of 35 fixed-choice likert-scale questions, and 6 open-ended questions. The survey was altered to suit the students' readability level, and although the survey was not pretested, it was discussed with colleagues to best anticipate students' interpretation of questions. Prior to administering the survey, bilingual permissions slips asking for parents' consent were prepared, and handouts highlighting the main topics covered in program were distributed to avoid memory bias. Before administration, survey purpose and instructions were explained and anonymity and confidentiality of answers were assured.

**Results:** Surveys were released and completed by all 13 students of the program. Results regarding satisfaction levels showed that 100% of participants would recommend the program to their friends, and 70% of students gave the program 5 out of 5 stars, while 30% gave between 4-5 stars. Furthermore, 100% of participants agreed or strongly agreed that the program was a positive turning point in their lives and 92% of participants felt they could make a positive impact on their communities due to the program. Regarding assessment of program goal completion- 100% of students agreed or strongly agreed that they learned the differences between healthy/unhealthy/ abusive relationships, 100% reported an increase in confidence in ability to effectively intervene as a bystander, and 92% of students reported that they felt prepared to be TDV prevention ambassadors in their communities.

**Evaluation**: All participants reported high levels of satisfaction with the program and that program goals were being met. However, only 85% of participants agreed or strongly agreed that they feel more confident in facing future challenges. Future curriculum should incorporate resiliency development so that students can internalize those skills and impart their knowledge to their peers, especially in situations of domestic or teen dating violence.

References: https://goo.gl/odnH1t

Title: Health Literacy of Contraception in Millennial, Generation X, & Baby Boomer Women

Name: Fatima Abdi

**Preceptors:** Charletta Ayers, MD, MPH / Research Supervisor: Chi-Wei Lu, PhD

**Agency:** Women's Health Institute at Robert Wood Johnson University Hospital

**Purpose:** To create a health literacy questionnaire to assess the knowledge, perception, and use of contraception in women of three generations

**Significance:** According to clinical studies, there is a clear discrepancy in the knowledge of contraception and contraceptive use in women of different age groups. This project will focus on three specific generations of women - Millennial (22-40 years), Generation X (41-52 years), and Baby Boomer (53-71 years). Factors such as education, number of children, media exposure, and religion can affect women's preferred contraceptive method. It is vital that women become educated about which contraceptive method is fit for them based on their age, preference, and/or health condition.

**Method/Approach:** A literature review was conducted using multiple sources for contraception knowledge in three generations of women. After proposing the research question and objective, the secondary outcomes were taken into consideration, including factors that affect women's perception of contraception, long-term effects including infertility, and the future of research on contraception.

**Outcomes/Results:** The outcome of this study is the development of an IRB-approved survey to evaluate the gap between women's use of contraception and contraceptive knowledge. The survey was a compilation of questions modified based on the current research of contraception along with validated questions from the Guttmacher Institute Survey for Young Adults. The survey included demographic information that was written according to the modern standards of political correctness. The survey assessed sexual knowledge of types of contraception, attitudes on contraceptive methods, sources for information, and actual utilization of contraceptives in the particular cohort.

Evaluation/Conclusion: The objective of the study was met as a thorough survey encompassing contraceptive knowledge and behaviors was generated. This research was novel as previous research had not been done to compare these three generations of women and their contraceptive practices. Research on millennial women's choice of contraception is also extremely limited. By creating an IRB -approved questionnaire, I can administer the completed survey to patients at WHI and analyze the results through statistical tests in order to contrast women's knowledge of contraception to the method of their choice. The information that is obtained serves to educate and create awareness. In the near future, I hope to develop an iPhone App using information from health professionals that allows women to input their information, like age, ethnicity, and health conditions, and generates the ideal method of contraception for them, which they can further discuss with their health provider.

**Title:** (DDD Supports Program) for Disability Allies

Name: Minhazul Abedin

**Preceptors:** Ross Yellin (CEO), Joyti Joswin (Human Resources)

**Agency:** Disability Allies

**Purpose:** To provide NJ Family Care providers with information regarding a decision by the New Jersey Division of Medical Assistance and Health Services (DMAHS).

**Significance:** In 2012, the overall percentage (prevalence rate) of people with a disability of all ages in New Jersey was 10.3 percent. In other words, in 2012, 900,000 of the 8,764,200 individuals of all ages in NJ reported one or more disabilities. In cooperation with the New Jersey Division of Developmental Disabilities (DDD), the mission is to establish a medical waiver demonstration through which adults with intellectual and developmental disabilities who live in a community setting can access DDD- funded community-based services.

**Method/Approach:** Training on medicaid billing was required to properly contribute to providing services to patients and bill on time to get workers paid. There was an arranged one-on-one training with a representative from Molina Healthcare. A billing document was provided with instructions on how to properly bill and a guideline with information pertaining to NJ Family care providers. All consumer information, medicaid billing instructions, DDD payroll processes are shared on my OneDrive account with my supervisor. The data provided in the OneDrive is used for medicaid claim completion.

**Outcomes/Results:** All claim completion is done on njmmis.com. This is how all the billing is done and it can be only done using internet explorer due to its compatibility settings. All DDE claims are under the CMS-1500 section. This section specifies medicaid billing specifically. Claim completion is properly done with all consumer (patient's) information provided. The information includes the patient's name, date of birth, insurance I.D. number, NPI, and diagnosis code (ICD-10). Billing specialists are provided the patient's NJ Individualized Service Plan (NJISP) and Service Detail Report to complete the health insurance claim. Place of service is always valued at "99." The ICD-10 and all information listed above varies per patient. Charges are calculated by the equation F=G x Rate.

**Evaluation/Conclusion:** Billing is done properly if all information is provided completely and correctly on the CMS-1500 form. All information is provided in an organized manner on the OneDrive so billing becomes easy. Organizing all the patients information was a challenge, but completing that makes the rest of the tasks easier. If there was an error made, you can do a resubmission and the most recent claim will be taken by the insurance. This work requires a lot of data analysis from various patients with various disabilities.

**Title:** Trained dogs redefining our viewpoint on early cancer diagnosis

Name: Mike Adarkwah

**Preceptors:** Direct Supervisor: Sona Jasani, MD, OB/GYN,

Project Supervisor: Gloria Bachmann, MD, Director of Women's Health Institute

**Agency:** Robert Wood Johnson University Hospital

**Purpose:** To utilize prior research on the olfactory sense of dogs in improving the early diagnosis of cancer in humans.

**Significance:** The olfactory sense of dogs could be utilized to improve health through economical and noninvasive early cancer detection. Researchers suspect that Volatile Organic Compounds (VOCs) could be key bio markers in training dogs to identify specific compounds emitted by cancer patients <sup>1</sup>. Whereas concepts of chemical compound detections is often used in cancer diagnosis by technological means, high resolution CT, MRI, and PET scan can be costly and often at times expose us to carcinogenic levels of radiations in addition to unnecessary biopsies <sup>2</sup>. The ability to detect cancer at its earliest onset allows for a lower cancer mortality rate as it pushes for early treatment.

**Method/Approach:** While considering morbidity and mortality outcomes, there are various ongoing research related to this review that analyze the congruence between such studies and the outcomes in improving cancer diagnosis in humans. Furthermore, scholarly research on various platforms including Google Scholar, Pubmed, and Rutgers Online Library were conducted for relevant articles. Finally, data from multiple studies related to dog olfactory sensitivity and specificity in cancer detection were grouped in a table to serve as evidence to asserted claims throughout this review.

**Outcomes/Results:** From the research compiled, there are multiple studies suggesting that canines are utilized for early cancer detection. For instance, McNeil and his colleagues claim a ninety-nine percent accuracy in the ability of their five trained dogs to detect lung cancer in the breaths of cancer patients <sup>3</sup>. On the contrary, in a study by McCulloch and his colleagues, it was found that across four stages of breast cancer, canine sensitivity and specificity was 0.88 and 0.98 respectively whereas for lung cancer, canines were able to achieve a remarkable sensitivity and specificity of 0.99<sup>4</sup>.

**Evaluation/Conclusion:** Utilizing the remarkable olfactory sense of dogs in helping diagnose cancer in humans is just one promising lead to understanding the significance of our surroundings and interactions in improving the health of both living things. Whereas this review seems very promising, multiple challenges arise when it comes to providing undoubted scientific evidence in regards to its results. Such involves the identification and characterization of the VOCs and their biochemical composition in addition to assigning identified VOCs to specific pathological conditions and diseases <sup>5</sup>.

https://docs.google.com/document/d/134 i3Qii3n31sWHOFtm3OBB1EgX430vs43YHaCX1qlk/edit

Title: Seniors and Women, Infants and Children (WIC) Population Farmers Market Nutrition

Programs (FNMP).

Name: Nicholas Addo

**Preceptors:** Lisa Asare, MPH, Assistant Health Commissioner, Division of Family Health Services

**Agency:** New Jersey Department of Health

**Purpose:** To improve access to Farmers Market Nutrition Programs (FMNP) and increase redemption rates of FMNP checks among eligible senior citizens and WIC population in New Jersey.

**Significance:** The Farmers Market Nutrition Program (FMNP) is a federally funded program created to address food insecurity and increase access to fresh produce for seniors and the women, infants and children (WIC) population. Per a report by Feeding America, approximately 11.6% of New Jersey's population is food insecure. The FMNP gives checks to eligible seniors and WIC populations to purchase fresh produce at participating farmers markets. However, check redemption rates have declined in some local agencies. The decline suggests that there are persistent barriers that need to be addressed. This project was designed to develop recommendations to improve access to farmers markets and provide suggestions to increase check redemption rates among the target population.

**Method/Approach:** An extensive literature review was executed to find successful FMNP expansion efforts in other states. Key informant interviews conducted included the WIC population and seniors FMNP project coordinator. Data was collected from participating WIC population and senior FMNP agencies to determine redemption rates for 2015 and 2016. The data revealed the net number of checks issued, distributed and redeemed. The number of checks distributed and redeemed were used to calculate the final redemption rates.

Outcomes/Results: Of the 17 WIC agencies, 4 saw their redemption rates decline between 2015 and 2016. North Hudson saw a 6% decline (87%-81%). Trinitas and Passaic redemption rates declined by 5% (88%-83% and 42%-37% respectively). Newark decreased by 4% (92%-88%). With regards to the 22 seniors FMNP, 5 agencies saw a significant decrease in their check redemption rates from the previous year. Hudson County saw the steepest decline by 29% from 78% in 2015. Sussex County decreased by 11% from the previous year. Essex and Monmouth County's rates declined by 2% respectively whereas Atlantic decreased by 3%.

**Evaluation/Conclusion:** Location is a major barrier that hinders access to food. Expand congregate feeding sites to include farmer displays for seniors. Also, encourage the WIC population to sign up for the FMNP or redeem their checks through advertisements at local food pantries or faith based organizations. Collaborations with local agencies and housing projects will help to educate target populations about healthy eating and how to cook meals with fresh produce.

Link to references: http://bit.ly/2oFtVBI

Title: Municipality Outreach Among New Jersey Mayors to Curb Human Trafficking

Name: Ryan Agbim, Intern

**Preceptors:** Dr. Louise Murray, Internship Coordinator

**Agency:** New Jersey Coalition Against Human Trafficking

**Purpose:** To spread awareness in New Jersey municipalities regarding the hidden prevalence of modern day slavery through human trafficking.

**Significance:** In 2015, the mayors of New Jersey signed a resolution urging local officials to provide leadership in ending human trafficking within the state. Although not visibly seen, human trafficking is a crime that is second only to illegal drug distribution. It involves the use of force, fraud, and coercion for the purpose of sexual exploitation and forced labor. New Jersey is a hub for human trafficking, being so easily acceptable (Interstate 95) and being very close to major tourist cities, mainly New York City and Atlantic City. The New Jersey Coalition Against Human Trafficking promotes effective awareness efforts that can be replicated in every municipality in New Jersey. The more light that is shed on this issue, the more likely we can put a stop to this heinous crime.

**Method/Approach:** To help spread awareness and education regarding human trafficking, numerous municipalities' mayor offices were contacted asking them if they would like to first post a public service announcement on their town website. Contact was made initially through phone calls and emails. We provided them with a link to our website, njhumantrafficking.org and also gave them a link to the PSA that they were free to post on their town website. We logged details about our contact with the municipalities each day in order to have information to refer to in the future (a relationship with each town is necessary). Towns were chosen at random, although we focused on town around our hometowns so that if a meeting were to be scheduled, travel would not be an issue.

**Outcomes/Results:** Out of the 565 total municipalities in New Jersey, we contacted 71(n=71). Municipalities were given the option of posting a human trafficking PSA on their town/city website. Along with the PSA, the NJCAHT toolkit was offered as a guide to raise awareness. Out of the 71 towns and cities we contacted, 45(63.38%) did not post the PSA or toolkit. 26 municipalities, however, agreed to post the PSA and links to the toolkit. Out of the 71 municipalities, 2 of the town's police departments accepted the toolkit. 1 school district (Chatham Borough) accepted the toolkit.

**Evaluation/Conclusion:** A majority (almost 64%) of the municipalities had chosen not to accept either PSA or the toolkit that was available. Reasons behind this vary. The most common reason as to why they were not accepted was due to our interns not being able to contact the mayor directly, and was continuously being deferred to someone else or another department in town. Human trafficking can be a sensitive issue, so it is likely that mayors do not want their citizens to think that there is an issue of trafficking in their town/city by advertising efforts to curb it. Protecting the city's image is naturally on the agendas of most mayors.

**Title:** Assistant Sensory Motor Coach

Name: Murtaza Ahmad

Preceptors: Direct Supervisor: Dr. Yola; Internship Coordinator: Marilyn Rukaj

**Agency:** Brain Balance

**Purpose:** To analyze proper brain and body function leading to a reduction or elimination of negative symptoms by recording and evaluating each individual's daily progress throughout the span of the program.

**Significance:** Behavioral issues in children can lead to stress and frustration for the entire family. Sometimes children who demonstrate significant behavioral issues are given a formal diagnosis of oppositional defiant disorder. Often behavioral issues are identified along with another diagnosis such as ADHD or Asperger's. In many cases, behavioral issues never receive a formal diagnosis but nonetheless are a major issue in a child's ability to make and keep friends or succeed in school. They often require intervention due to the impact on family life and disruption to everyday activities. Brain Balance's integrated approach combines physical and sensory motor exercises with academic skill training and healthy nutrition to help those with these disabilities live a prosperous life.

**Method/Approach:** To begin the program an in-depth assessment of the child enables Brain Balance to personalize a program that meets the child's needs. The assessment covers a large number of issues that help understand exactly why the child may excel at some tasks and struggle with others which is shared and discussed with the parents. Then the number of sessions are determined by the results of the child's assessment. Generally, programs are completed in approximately 3 to 6 months time in the Center, with some children needing more time to achieve their goals. In-Center sessions consist of one hour, three times a week. Each hour consists of sensory motor training and academic skills. The session progress is recorded by individual coaches timelining the growth of the individuals partaking in the program.

Outcomes/Results: Due to the time constraint of the internship, gaining final results for the individuals enrolled was a difficult task. But while being a sensory motor coach for the duration of the internship one can say that every child is different, and some show certain characteristics. For example right brain weak children swing their legs more from chairs while sitting, repeat the same words over and over, tend to be more emotional as well as tend to have little to no sense of personal space causing right brain weak kids to have slower physical reflexes. While left brain weak kids show poor motivation and low self esteem making the child shy, quiet, and not very talkative leading to learning disabilities.

**Evaluation/Conclusion:** While it was once believed that the brain was static, unable to grow or change, extensive research shows that it is remarkably adaptable. It can grow, strengthen, and improve at just about any age. The brain can change and missing pieces of development can be corrected, children can and do improve.

**Title:** Safety Ambassador Program Performance

Name: Sana Ahmed

**Preceptors:** Direct Supervisor: Diana Starace, Coordinator of Injury Prevention and Safe Kids

Middlesex County

Project Supervisor: Carol Lavitt, Safety Ambassador Program Coordinator

**Agency:** RWJUH Injury Prevention and Trauma Department, New Brunswick, NJ

**Purpose:** To assess effectiveness of RWJ Safety Ambassador Program by analyzing pre-and post-data that measures knowledge acquisition of participating 1st and 2nd grade students in Middlesex County.

**Significance:** According to Safe Kids Worldwide preventable injuries are the leading cause of death for children in the US. Unfortunately, many families do not have proper access to the education and resources necessary to keep their children safe from tragic incidents such as drowning, car crashes, fires, and falls. This public health problem extends across the globe, as one million children die of unintentional injuries each year. Education is key to control and prevent the high rates of childhood injuries. The Safety Ambassador Program achieves this goal by partnering participating Safety Ambassadors (high school students) with 1<sup>st</sup> and 2<sup>st</sup> graders to educate them about injury risks that specifically affect this age group.

**Method/Approach:** For the 2015-2016 school year, pre-and post-program data were collected from 1<sup>st</sup> and 2<sup>std</sup> graders utilizing a yes/no answer sheet. Elementary students were presented with a series of 12 questions regarding safety knowledge. Incomplete answers were excluded from the data. Pre-and post-data were entered into aggregate and response tables. The first table indicated a raw score out of 12, while the second table displayed the yes/no responses for each question from each student.

**Outcomes/Results:** When comparing the survey question "Is it safe to play in the driveway?" for both years, 91.2% answered correctly this year compared to 88.2% who answered correctly in the previous year. There was increase in the percentage of students from 2015-2016 to 2016-2017 who answered 10+ pre-test questions correctly (40.3% to 46.1% respectively). When analyzing the 2015-2016 data, out of first graders who completed the pre-test (N=446), 4.5% answered all 12 questions correctly. The post-test revealed an increased percentage of first graders, 13.5%, who answered all 12 correctly. Among second graders (N=179), 8.7% answered all pre-test questions correctly, while 7.0% answered all post-test questions correctly.

**Evaluation/Conclusion:** For the 2015-2016 school year, first graders (N=625) showed a 9% improvement from pre-to post-test. The opposite was seen for 2<sup>nd</sup> graders (N=179), as there was a 1.7% decrease from pre-to post-data. Even though there was a decrease seen with second graders (N=179), statistical evidence of the effectiveness of the Safety Ambassador Program is proven to be true, as looking at both 1<sup>nd</sup> and 2<sup>nd</sup> graders there was an increase of 5.9% from pre-to post-test. Data from 2016-2017 will be further analyzed once post-test data is received in early June.

**Title:** Creating a baseline for the promotion of oral health in Middlesex County

Name: Sofia Anamuro

**Preceptors:** Direct Supervisor: Carrie Johnson, Coordinator, LINCS

**Agency:** Middlesex County Office of Health Services

**Purpose:** To create a dental practice database for the Middlesex County Local Information Network and Communication System (LINCS) and The Regional Chronic Disease Coalition of Middlesex and Union Counties for the creation of oral health programs.

**Significance:** The main purpose of the Middlesex County Office of Health Services is to maintain the health and well being of more than 800,000 residents. In order to share accurate information with the public concerning public health emergencies, the LINCS program is used to link together health care and community partners. Creating a baseline for dental practices in the county would help the health department to establish a partnership with to effectively promote oral health and oral cancer prevention programs to its residents.

**Method/Approach:** The New Jersey Consumer Affairs provided information on active and licensed dentist in New Jersey. Information was collected from 416 dentists in Middlesex County. The information collected included practice name, address, phone number, email address, and type of practice. A form was created to inform and invite the dental practices to join the LINCS program. The responses and emails from the dental practices in the county were followed.

**Outcomes/Results:** After the removal of facilities that are no longer existent came back as returned mail, the initial database was condensed into 396 contacts. Of those contacts, 328 are general dentists, 52 are orthodontists, 11 are Periodontists, and 5 are prosthodontists. Out of the general dentistry facilities, 2.43 % responded and 8 enrolled in LINCS. Out of the 52 orthodontists, none responded and none enrolled in LINCS. Out of the 11 periodontists, 9.08 % responded and one enrolled in LINCS. Out of the 5 prosthodontists, 40% responded and 2 enrolled in LINCS. Overall, there was a 2.8 % response rate. Responses were accepted up to April 25, 2017, and more are expected over the next few months.

**Evaluation/Conclusion:** Dental information that is freely obtainable through the internet is not completely accurate. After reviewing the response rate from dental practices, it is concluded that there is not a high desire for individual practices to be part of the communication systems and further studies need to be conducted. The information collected will be useful in the development of further wellness and cancer-prevention programs.

Title: Sister Informing Healing and Empowering (SIHLE)

Name: Isibhakhomen Arhewoh

**Preceptors:** Project Supervisor: Ms. Deloris Dockrey

Supervisor: Ms. Tyeisha Adams

**Agency:** Hyacinth AIDS Foundation

**Purpose:** To educate young women 14-18 years old on HIV/AIDS and STD prevention that will assist them to have a beneficial and healthier lifestyle.

**Significance:** In 2014, youths within the ages of 13 to 24 accounted for more than 1 in 5 Human Immunodeficiency Virus(HIV) cases in the United States which estimated about 22% of all new cases. According to United Nations International Children's Emergency Fund (UNICEF), in 2015 670,000 young people within the ages of 15 to 24 were newly infected with HIV. Of the sample size (n=670,000) 13% are adolescent girls and 9% are adolescent boys. The education of women about HIV and Sexually Transmitted Disease (STDS) can help prevent new cases and reduce the stigma associated with HIV and STDS. Destigmatizing HIV can pave a way for people to seek treatment, better equip themselves in prevention techniques and participate in better lifestyle choices.

**Method/Approach:** The SIHLE program is a peer-led and social-skills educational intervention outreach is aimed at reducing HIV and STD among young women and maintaining a healthy relationship in every aspect of their life. This curriculum was facilitated at facility in Middlesex county and in 3 high schools in Trenton. The

High school students between the ages of 14-18, abstaining or sexually active completed an entry and exit survey at Trenton and Middlesex County. This test focused on 4 objectives: pregnancy prevention and STD risk reduction strategies, enhanced communication and negotiation, perception of personal risk and intentions to reduce pregnancy risk, and associated behaviors.

Outcomes/Results: The sample size (n=53), the first objective (pregnancy prevention) 83.3% correctly answered on the entry test and 86.0% correctly answered on the exit test which showed a 2.7% improvement. In objective 2 (enhanced communication) 73.5% achieved the objective on the entry test and 92.0% achieved the objective on the exit test showing a 18.5% improvement. For objective 3 (perception of personal risks) in the entry test 87.0% of the girls achieved the object while 84.0% of the girls achieved this objective on the exit survey, showing no improvement. In objective 4 (intentions to reduce pregnancy risk) 90.2% of the girls answered yes to using condoms on the entry test and 98.0% answered yes on the exit survey showing 7.8% improvement. Additionally, accounting for the ethnic background or 'race' 91.31% of African American / Black girls and 90.6% of the Hispanic girls showed improvement.

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**Evaluation/Conclusion:** Out of the sample size, 3 girls participated in the entry survey but not in the exit survey. The participant showed improvement in objective 1,2 and 4 however, objective 3 did not show improvement. Every percent increase between the entry and exit test shows how efficient the curriculum is and the participants secured knowledge about healthier lifestyle choices.

**Title:** The First-Year Fellowship Certificate Program

Name: Stephanie Arronis

**Preceptors:** Jordan Shyi, Associate Director

**Agency:** Rutgers Student Affairs, Department of Leadership & Experiential Learning

**Purpose:** To assess the success of the First-Year Fellowship Certificate Program at Rutgers University.

**Significance:** The biggest problem that college students face today is being underprepared when entering the workplace. The First-Year Fellowship Certificate program allows students to develop leadership skills that encourages them to get more involved on campus at an earlier rate. By introducing students to various leadership styles and skills, we are creating a strong group of student leaders that will continue to grow throughout their four years at Rutgers University. The pre- and post- assessments were created and administered to see the improvement among students' skills and find ways to better the program overall.

**Method/Approach:** A pre-assessment was conducted during the first cohort meeting to measure the comfort level that students had within the 10 leadership skills that would be covered throughout the seven workshops. A post-assessment was conducted at the end of the 7-week fellowship program to assess the development and improvement among the 10 leadership skills. In the post-assessment students had the opportunity to explain the overall impact the fellowship had on them as a student leader.

**Outcomes/Results:** Of the sample size cohort (n=60), the pre-assessment indicated that students were least comfortable with 9 out of the 10 leadership skills. Public speaking, personal confidence, and taking initiative rated the highest with not feeling at all comfortable discussing with 26 (43%), 24 (40%), and 20 (33%) students respectively, however these three skills did not see the biggest improvement. The post-evaluation showed the greatest development in leadership skills was seen in meeting new people with 34 students (57%), understanding other people's leadership style with 31 students (52%), and working effectively on a team with 17 students (28%). While all the leadership skills showed some sort of developmental improvement, the greatest improvement was seen among leadership skills that involved a group dynamic compared to self-development.

**Evaluation/Conclusion:** Overall, 39 students (65%) stated that the First-Year Fellowship program had a tremendous impact on their leadership development thus, motivating them to get more involved once completing the program. By looking at the bar graphs one can see the improvement of each leadership skill. Students who did state that "no change" had been made added the fact that their previous institution had a similar program to the fellowship in which they partook. With this new information, more research can be done to redesign certain aspects of the First-Year Fellowship curriculum to improve self-development competences.

**Title:** Patient's Progress and Outcome in Cardiac Rehabilitation

Name: Abiodun Ashade

**Preceptors:** Direct Supervisor: Jose Maniquis; Registered Nurse: Ellen Weiss

**Agency:** Robert Wood Johnson Cardiac Rehabilitation Center

**Purpose:** To analyze the factors associated with heart attack, heart failure, and heart surgery of cardiac patients at Robert Wood Johnson Cardiac Rehabilitation Center.

**Significance:** Heart disease is the leading cause of death for both men and women. Coronary heart disease kills over 360,000 people a year, accounting for 1 in 7 deaths in the United States (US). According to American Heart Association, about 790,000 people in the United States (US) have heart attacks each year, out of which 114,000 will die. Annual incidence of new heart attack in the United States (US) is estimated to be 580,000 and 210,000 recurrent attacks. These statistics show the difficulty in comprehending the risks of heart disease, such as overweight/obesity, diabetes, physical inactivity, smoking, poor diet (high cholesterol).

**Method/Approach:** Patients information regarding their conditions and the risks factors associated with heart attack, heart failure and heart surgery were collected from January to April 2017. Data was gathered from 20 patients ranging from age 41 to 84 years. The data indicates their age, gender, BMI, family history, smoking habits, lifestyles, and conditions under medical care. The information was analyzed to determine the most prominent risk factors that led to these patients' heart attack, heart failure, and heart surgery which brought them to the cardiac rehabilitation center.

**Outcomes/Results:** Of the patients admitted at the cardiac rehab (n=20), Thirteen (65%) were males and seven (35%) were females. Fifty (50%) have diabetes, and eighteen (90%) had high cholesterol. The BMI ranges from 17.1 to 42.0, whereby two (10%) patients were below 18.5 which is considered underweight. Six (30%) patients were between the normal BMI (18.5 - 24.9). Three (15%) patients were between 25-29.9 and therefore considered overweight. Nine (45%) were above 30.0 which is obese. Seventeen (85%) patients had a family history of heart disease. Of the 20 patients, 10 (50%) never smoked while 10 (50%) quit smoking. Two (10%) patients were involved in physical exercise, while 18 (90%) were never involved in any form of exercise before they developed heart problem.

**Evaluation/Conclusion:** Eighteen (90%) of the patients had high cholesterol, and seventeen (85%) has family history. Nine (45%) of the patients were obese and 18 (90%) were never involved in any kind of physical activities. Healthy nutritional diet and physical exercise at home or at the gym can both help reach and maintain a healthy weight and reduce risk of chronic diseases. Blood sugar, blood pressure screenings, and regular check-up will serve as a wakeup call to monitor health in a positive way. These methods serve for preventing new and further attacks. Compliance with these methods would decrease the incidence rate of heart attacks.

**Title:** Imagine Me: A fundraising event for children impacted by HIV/AIDS

Name: Nadine Azari

**Preceptors:** Chiemelie Umenyiora, Director of Development

Jaclyn Harte, PhD., Director of Firehouse Program

**Agency:** AIDS Resource Foundation for Children - Newark, NJ

**Purpose:** To plan and execute a successful fundraiser for the Firehouse program at the AIDS Resource Foundation for Children (ARFC).

**Significance:** The AIDS Resource Foundation for Children serves the population of Newark impacted by HIV/AIDS; 5,718 individuals are currently living with HIV in the city. Programs include, but are not limited to transitional housing for HIV+ gay, young men, social, therapeutic services and an after-school program for children impacted by the disease. The after-school program, known as the Firehouse program, assists children with the psychological, cognitive and school-related struggles that can occur when exposed to HIV, as explained by Sherr and Cluver, et al. Adjustments in corporate giving from large companies has left the after-school program with one sole funder- the Victoria Foundation. This lack of funding may result in possible program termination. Monies from other forms of fundraising are needed to continue, and better, the Firehouse program.

**Method/Approach:** To begin planning the fundraiser, the ARFC staff, along with interns, discussed ways to fundraise and include the Firehouse kids in whatever fundraising method chosen. It was decided that a prom for the Firehouse kids would both raise funds for the program and be an enjoyable experience for the children. The committee then decided on a date and time. The next step was creating a marketing campaign to fundraise for the event; this was done through the Facebook fundraising tool. Social media posts related to the fundraiser were posted daily and letters were sent to supporters via mail, urging them to donate. The fundraising goal for the event was \$2,000.

**Outcomes/Results:** The event was a success. Children in the after-school program were able to enjoy a memorable experience and funds were raised for the Firehouse program. Although the fundraising goal of \$2,000 was not met, the event was able to raise a total of \$850 for the program.

**Evaluation/Conclusion:** The fundraising goal was not met. These results may be attributed to the organization's donor base- many donors are older and do not donate via Facebook or the internet, but through handwritten checks. Much of the marketing for this fundraiser was done through Facebook, where many of the donors are not active. Future fundraising initiatives should be marketed for solely via mail, until donors become more technologically savvy. ARFC plans to compensate for the loss of funds through grants, so the Firehouse program will not be terminated in the foreseeable future.

**Title:** Predictive Staffing Model

Name: Julianna Bastone

**Preceptor:** Dustin Connelly, Director of Perioperative Services

**Agency:** Robert Wood Johnson University Hospital

**Purpose:** To more appropriately staff same day surgery unit and reduce overtime spending.

**Significance:** Having the appropriate amount of staff on your unit is critical to provide optimal care in a hospital setting. Outpatient surgery, specifically, can be difficult to staff for because it is challenging to predict how many patients will be seen on any given day. Overstaffing will result in higher operating costs whereas understaffing may result in being unable to provide the necessary levels of care needed. Understaffed units have the potential to be dangerous for patients and can have a negative effect on patient satisfaction, which can ultimately affect the hospital's reimbursement. When understaffed, the hospital must use overtime or per diem nurses to fill in the gaps, which adds significant cost as this labor is paid at a much higher rate. This tool was designed to predict the patient volume for outpatient procedures on any given day based on the week number and day of the week. Being able to predict staffing needs allows the unit to anticipate and accurately prepare for the demand. Additionally, accurate staffing and scheduling can lead to higher staff satisfaction and morale.

Method/Approach: After researching other predictive nursing models, data collection began. This tool is based entirely on historical data. The first step was collecting case history dating back as far as possible. The Robert Wood Johnson University Hospital electronic record was able to provide historic data going back to 2010, the year their EMR was installed. The data file needed to be split by inpatient and outpatient procedures. The data was then sorted by day of the week and week number of the year. After careful vetting and analysis of the data, the predictive staffing model was created using pivot tables, lookups and queries. The model generates an average patient volume for any given day of the week based on the week number of the year. You first manually select a week number using a "slicer." After selecting the desired week, your expected volume per day of the week is generated. Based on the predicted volume you can then decide how many nurses are needed to properly staff for outpatient surgery on that day based on nurse/patient ratios.

**Outcomes/Results:** Since the model was implemented, the number of overtime hours worked by same day surgery nurses decreased by an average of 34 hours per pay period (bi-weekly) in comparison to the previous two months. Based on the average nurse hourly rate for overtime (time and a half), the savings per pay period would equate to roughly \$2,946 per pay period, approximately \$76,500 savings annually.

**Evaluation/Conclusion:** While the model can be extremely helpful, the downfall of using historical data is that it may not be practical for an extended period of time as it does not account for growth. The model was based on the hospital's inpatient and outpatient volume throughout the past seven years but does not factor in the possibility of any increase in patient volume to the hospital in coming years. The model has proven to be successful for the short term.

**Title:** Population Health Management - Developing a Roadmap

Name: Danna Marie Beyo

**Preceptors:** Kwaku Gyekye; Director, Population Health

**Agency:** RWJBarnabas Health - Jersey City Medical Center

**Purpose:** To analyze the mental, physical, and overall health of members of Wealth from Health® from enrollment until now using SF-12 survey and determine ways to help them achieve high quality of health.

**Significance:** With a population of 675K and ranked last in clinical care in NJ, a comprehensive population health program at RWJBarnabas Health is needed. The SF-12 survey measures the physical and mental health of a patient. Factors such as health behaviors, clinical care, and other social determinants impact the health of a person. In the Robert Wood Johnson Foundation data, 68% of Hudson County residents received college education, 23% are uninsured, 24% suffer from adult obesity, and 23% showed poor or fair health level. Jersey City Medical Center's programs aims to improve Hudson County's quality of life. It empowers and teaches the community ways to manage chronic health conditions through education, providing basic needs, support, and tangible rewards without cost.

Method/Approach: Wealth from Health® collects SF-12 survey data from members during and every 6 months after enrollment to the program. Patient Navigators administer the survey to find out the quality of life of the member, which provides information about their difficulties regarding their physical and mental health. Patient Navigators and doctors use the responses to work on the areas of health that needs attention. Wealth from Health® along with their partner local vendors provides the members with resources that can help the members improve their physical and mental health.

**Outcomes/Results:** A total of 1377 members (445 male and 932 female) with a mean age of 48 answered the SF-12 survey. Based on the physical component summary scores of the first/baseline survey taken by members, 48% are below, 29% are at, and 23% are above the norm. For their mental component summary, 42% are below, 30% are at, and 27% are above the norm. In order to monitor the progress of the members, we conducted a follow up survey. Based on the physical component summary, 47% are below, 29% are at, and 24% are below the norm, while the mental component summary states that 43% are below, 31% are at, and 27% are above the norm. The target for those below the norm/worse health is to get to the norm or above. There is minimal change in percentages because members come and go, there is loss of contact, or members cannot come to the office for other services.

**Evaluation/Conclusion:** Monitoring the health improvement of Wealth from Health® members will determine the effectiveness of the program. Based on the needs of the population as indicated on survey results, an on-going care coordination is needed in order to make improvements on the population's health. Follow up survey every 6 months will be conducted for monitoring purposes.

Reference: http://bit.ly/BeyoDannaMarie

Title: U Got Brains? Champion Schools Outcomes Assessment

Name: Jodi Bischoff

**Preceptors:** Wendy Berk

**Agency:** Brain Injury Alliance of New Jersey

**Purpose:** To analyze the impact of teen driving safety campaigns in New Jersey high schools for funders.

**Significance:** Motor vehicle crashes are the leading cause of death for people ages 16-20 in New Jersey. Although they only account for 6% of licensed drivers in the state, they are involved in 13% of the crashes. Teens are least likely to use seatbelts, and they are most likely to crash because of distracted driving, inexperience, speeding, and/or failure to stop and yield. Beginning in 2010, the *U Got Brains? Champion Schools* program has encouraged over 100 schools to participate in teen driving safety campaigns. These campaigns teach students about avoidable risks when driving

# Method/Approach:

The number of moderate, serious, and fatal car crashes in 11 towns home to high schools that participated in the program was compared to aggregate New Jersey data from 2008-2015.

# **Outcomes/Results:**

Compared to New Jersey aggregate data, nine programs saw significant reductions in the number of moderate, serious and fatal car accidents before and after the implementation of the *U Got Brains? Champion Schools* program. Bogata saw a reduction by 29.65%, Nutley by 22.94%, Haddonfield by 41.83%, Old Bridge by 16.18%, Jackson by 14.75%, Evesham by 14.31%, and Manalapan by 5.36%. Seven of the eleven towns, or 63% of the sample towns, also saw a significant reduction in serious or fatal car crashes alone

# **Evaluation/Conclusion:**

Of the eleven towns that participated and were evaluated, there were major reductions in moderate, serious, or fatal accidents for nine of the towns. Thus, 82% of the sample towns that had high schools in the *U Got Brains? Champion Schools Program* saw a significant reduction in either moderate, serious, or fatal car crashes. Therefore, it appears that the *U Got Brains? Champion Schools Program* is helping reduce the number of severe car crashes throughout New Jersey. Some limitations to the study consist of small sample size of the towns evaluated. There are only a few years of consecutive data, which makes it difficult to see major trends. Other factors that might have contributed to these findings could have been other safe driving programs also targeted at teens. For these reasons, the program should be expanded further to evaluate the success of the program.

Works Cited http://bit.ly/BischoffWorksCited

**Title:** Disaster Cycle Services Performance Tracker

Name: Brittney Black

**Preceptors:** Michael Prasad, Director of Disaster Support Functions

Project Supervisor- Michael Prasad, Director of Disaster Support Functions

**Agency:** American Red Cross

**Purpose:** To keep record of and analyze the number of volunteers and employees that participate in Red Cross disaster training by comparing the number of completed courses over the duration of a year.

**Significance:** Natural and manmade disasters can be extremely devastating and many individuals' basic necessities can be lost instantly. That is why it is vital for the volunteers and employees at the American Red Cross to be up to date with their shelter and disaster training. The American Red Cross has a vast level of training courses available to its employees and volunteers. These courses are essential to the success of this organization. The organization relies heavily on volunteers, and it can be difficult to keep up with their training completion. Utilizing different methods to increase participation will address the lack of training.

**Method/Approach:** The Red Cross implemented a Disaster Cycle Services curriculum that consisted of five courses: Disaster Cycle Service: An Overview, Psychological First Aid, Everyone Is Welcome, Shelter Fundamentals, and Concept of Operations. One hundred and sixty one individuals were recorded and tracked for their disaster training courses in a spreadsheet. Three different time periods were measured: after January 1, 2016, after January 28, 2017, and after February 21, 2017. The first two measurements depicted individuals who were previously notified of their uncompleted training courses by email. The last measure was 59 individuals in the northern region (Bergen, Passaic, Hudson, Warren, Essex, Sussex, Morris counties) that were informed by phone of their remaining courses.

**Outcomes/Results:** Out of the sample size of 161, the first measurement revealed that after January 1, 2016, 34.7% of volunteers and employees took disaster training courses. After January 28, 2017, 24.8% participants took classes after a weekend of scheduled training classes. After February 21st, 7.4%, took training classes and 3.1% of those (5 people) were located in the northern counties.

**Evaluation/Conclusion:** There was a low percentage of volunteers that took courses after being called for their disaster training curriculum. Only 17% of those who answered took additional courses, and only 3.7% of those who received a voicemail took courses. This low percentage can be attributed to a high number of individuals who did not answer the phone. If spoken directly to, perhaps, more individuals would have completed more courses. Additionally, some participants may have had conflicting schedules with the courses offered on weekends and as a result were not able to attend. Going further, to increase participation, more frequent calls can be made and more classes and times can be offered.

Title: The Effectiveness of a Multi-Hub Approach to Cross-Hudson Commuting

Name: Liam Blank

**Preceptors:** Direct Supervisor: Jim Venturi, Principal Planner

Project Supervisor: Aurelie Barbier, Junior Planner

**Agency:** ReThink Studio

**Purpose:** To analyze the effectiveness of implementing a multi-hub mass transportation system for commuters between New Jersey and New York.

**Significance:** Currently, the majority of NJ commuters reach Manhattan via the two Hudson River rail tunnels (at capacity and in need of repair) and the Lincoln Tunnel (at capacity). In addition, expansion is greatly needed for both Penn Station and the Port Authority Bus Terminal. Expanding the capacity at each terminal will only solve one problem without addressing the greater need for increased capacity at the Hudson River bottlenecks (the rail tunnels and Lincoln Tunnel). A multi-hub approach, which aims to distribute passengers before reaching the bottleneck, could potentially solve both problems at the same time.

**Method/Approach:** After analyzing the existing conditions (ridership, maximum capacity, projected growth, rolling stock, etc.), a unique transportation proposal was developed, which was then presented to the Principal Planner at ReThink Studio. Upon closer look at the study area, some existing proposals were able to be expanded to create a solution that better distributes commuter loads by dispersing passengers through transfer hubs before reaching the urban core, making the regional transit network more efficient and reliable without cutting service.

Outcomes/Results: Using capacity and ridership estimations, I was able to develop a phased approach to rebuilding the existing Port Authority Bus Terminal and restructuring the commuting patterns in a way that shifted most riders onto rail lines before reaching Manhattan. The majority of the Port Authority Bus Terminal's service would be redirected to a new and expanded transit hub at Secaucus, New Jersey. In conjunction with added rail capacity that will be brought to the Northeast Corridor by Amtrak's Gateway Project, I proposed extending the NYC MTA's #7 Subway Line from Hudson Yards to a new terminus at Secaucus. Further, I proposed a new PATH Subway route to branch off the existing system just west of Journal Square in order to serve Secaucus. Additional service could be provided by an extension of the Hudson-Bergen Light Rail to Secaucus via the abandoned Bergen Arches. The result was, all of these connections at Secaucus would provide the needed capacity to relocate the majority of the Port Authority Bus Terminal's service to Secaucus while still providing a diversity of destination and significantly easing congestion on several bottleneck points.

**Evaluation/Conclusion:** Although my proposal is certainly going to have to go through much more rigorous examination, ReThink Studio has officially incorporated my ideas into the company's regional transportation plan, which is expected to be released within the next few months. As I learn more and more about the transportation planning process, I intend to narrow the focus of this proposal and conduct further tests to understand how the multi-hub approach could benefit cross-Hudson commuting.

Title: Human Trafficking Knowledge Assessment in the Hospital Setting

Name: Kaila Blumenthal

**Preceptor:** Direct Supervisor: Diana Starace, Coordinator, Injury Prevention Program

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

(RWJUH)

**Purpose:** To assess knowledge of human sex trafficking among staff in the hospital setting and propose educational interventions to protect future victims.

**Significance:** Human Trafficking is a global public health problem; approximately 800,000 people are being trafficked across international borders. According to the National Human Trafficking Resource Center, there were 5,551 cases of human trafficking in the United States alone in 2016. 83% of the victims trafficked in the United States are United States citizens. Serious physical and mental health problems can result from human trafficking, and over 80% of victims end up seeing health care provider during the time of their captivity (Lederer & Wetzel 2014). Due to the danger and sensitivity of the issue, most victims will not willingly tell a healthcare provider about their situation. Understanding what hospital staff know about trafficking and utilizing educational resources will help identify and treat victims.

**Method/Approach:** A 10 question survey was disseminated to RWJUH employees VIA HealthStream, an e-learning system, for a span of three weeks. The questionnaire included two multiple choice questions, four true/false questions and two questions using a Likert Scale. First employees were asked to identify their role- e.g. clinical with direct patient care, clinical with indirect patient care and non-clinical. The survey then went on to measure the employees' overall knowledge of human trafficking.

Outcomes/Results: Of the 8,000 employees at RWJUH, 3212 responded to the survey. 2148 (67%) admitted little or no knowledge about human trafficking and 327 (10%) believed they might have encountered a victim of human trafficking. 729 (22%) employees stated that it is not important for them to know about human trafficking in their role at the hospital. The majority of the respondents correctly identified that human trafficking does happen in New Jersey and understood that victims can come from any social or financial background. Almost half of the participants (48%) incorrectly stated that human trafficking must involve movement of victims across borders. Additionally, 799 (25%) falsely believed that victims are only immigrants from other countries.

**Evaluation/Conclusion:** Over 70% of the participants answered two of the four true/false questions incorrectly. In general, the data suggests that hospital employee knowledge of human trafficking is limited. This information will support the creation of a mandatory educational module that all employees will be required to complete on an annual basis. An increase in knowledge and awareness of human trafficking will ultimately improve identification and care of patients (i.e. trafficking victims) across the healthcare continuum.

Citation: http://bit.ly/2oKAfbi

**Title:** The Greenway: An Opportunity to Partner with Medical Providers and County Parks

Name: Kerry Bolen

**Preceptors:** Direct Supervisor: John Dowd, Division Head

Project Supervisor: Teri Manes, Health Educator

**Agency:** Middlesex County Office of Health Services

**Purpose:** To establish rapport with and recruit healthcare providers to implement physical activity programs that improve the wellbeing of their patients.

Significance: The Middlesex County Office of Health Services is in the process of coordinating two national outreach programs in the area which are Walk With A Doc and Prescription Parks. The purpose of these programs is to engage the community in healthy habits by encouraging healthcare providers to promote walking and using local parts. The program Walk With A Doc is a national program where doctors and other healthcare providers host group-walking sessions for forty minutes with their patients and other community members to discuss health concerns while encouraging physical activity. Parks Prescription is another national program that encourages doctors to prescribe walking in local parks to their patients. These programs will help establish rapport between community members, healthcare professionals, and the Office of Health Services, while creating healthy behaviors for patients.

**Method/Approach:** After a series of meetings with other Middlesex County Parks Department and Aging Department to determine the needs of the community, a survey was sent out to healthcare providers in the Middlesex County area through the Local Information Network Communication System (LINCS) database to gage their interest in participation in outreach programs and to offer educational materials on health issues from the Middlesex County Office of Health Services. The survey was sent out to 79 healthcare providers through the LINCS system requesting contact information, location, which outreach program they were interested in, and which materials they would like from the county.

**Outcomes/Results:** Of the sample size cohort (n=79), surveys were successfully sent to 74 healthcare providers throughout the Middlesex County area. Of the 74 recipients, 3 healthcare providers provided feedback of their interests. Two of the recipients expressed interest in participating outreach programs. The other recipient expressed interest in receiving educational materials about nutrition, weight control, diabetes, and physical activity to distribute to patients. In addition, a trial walk was held on April 8<sup>th</sup> with local healthcare professionals, in which 20 local residents walked for one mile with a physical therapist.

**Evaluation/Conclusion:** Only 4% of the sample size responded to the survey within a two-week period distributed amongst healthcare providers in the LINCS system. Because electronic surveys did not seem to elicit responses, brochures may be better to use in future outreach attempts. Updates from the Middlesex County Office of Health Services to healthcare providers through the LINCS system can provide more feedback to generate better results.

**Title:** New Mexican Downwinders under RECA

Name: Samhitha Boyapalli

**Preceptors:** Dr. Amy Abruzzi, Supervisor

**Agency:** E.J. Bloustein School of Planning and Public Policy

**Purpose:** Prepare a summary report for the Tularosa Basin Downwinders Consortium (New Mexico) on the rationale behind the Radiation Exposure Compensation Act Amendments (RECA) of 2000 and suggestions for further study.

**Significance:** On July 16, 1945 an atomic bomb known as the Trinity Test was detonated in New Mexico which was the same size and composition as the bomb later dropped on Nagasaki. The Japanese have since documented that their atomic bomb survivors have an increased risk for leukemia and solid tumors depending on exposure level. In 1999, RECA was established; in 2000, Nevada Test Site downwinder populations became eligible for compensation under RECA amendments as were Trinity military personnel, but the law did not include populations living downwind of the Trinity Test Site. In 2005 Tularosa Basin Downwinders Consortium was founded, primarily to draw attention to the possible health effects of the atomic bomb on their community and to request inclusion in RECA. In 2014, NCI began an exposure reconstruction for Trinity Site residents, but have since lost the confidence of the residents. Senators and Representatives from NM have tried to get NM downwinders added to RECA for more than 10 years but have been unsuccessful and unable to explain their failure to residents. The TBDC is currently trying to bring attention to their situation and interest scientists in additional research.

**Method/Approach:** An assessment on current and past legislative documents to the amendment of the RECA for discussion on the criteria to be considered a downwinder population. Conduct literature review in MEDLINE and related databases to locate scientific studies conducted on NTS residents as compared with those in New Mexico, and review current papers on the ongoing health impacts of the atomic bomb on Japanese populations. Basic demographic data was gathered on downwinder counties from the NTS as defined in RECA with those from New Mexico using the US Decennial census data. **Outcomes/Results:** Based on the literature review, numerous studies on NTS populations were located but none on atomic bomb survivors in New Mexico, with the exception of the cohort study conducted on Manhattan Project workers. The next step will be to explore data options for health study.

**Evaluation/Conclusion:** It appears the main reason that NTS downwinders were included in RECA is the body of scientific studies that drew national attention to them prior to the establishment of the law as well as the NCI exposure assessment. In comparison and despite having a cancer registry since 1963, no similar published studies were conducted on New Mexican populations living in the four counties surrounding the Trinity site. The data is still in the process of being gathered as described above, which will be shared with the TBDC in upcoming months.

Title: Efficacy of Education Materials Developed for Minority Cancer Awareness Week

Name: Samantha Brandspiegel

**Preceptors:** Chasity Burrows Walters, Director of Patient and Caregiver Engagement

**Agency:** Memorial Sloan Kettering Cancer Center

**Purpose:** To develop and test the efficacy of materials designed to educate the minority populations about cancer and cancer screenings.

**Significance:** Cancer is the second leading cause of death in the United States, exceeded only by heart disease, and accounts for 25% of all deaths (ACS, 2017). While there are no specific cancers attributed to minorities, racial and ethnic disparities greatly contribute to prevention, early detection, and treatment of cancer. Black people have the highest death rate and shortest survival of any racial/ethnic group in the United States for most cancers (ACS, 2016). Cancer is the number one leading cause of death among Hispanic people, although the incidence rates are lower compared to non-Hispanic white people (ACS, 2015). Minority populations are less likely to be educated about cancer prevention and screening; therefore their diagnoses tend to be too far advanced which causes their higher death rates. By educating minority populations about cancer, we have the ability to reduce incidence and death rates by promoting prevention and screening.

**Method/Approach:** Two flyers were created to educate minority populations in the New York City area about cancer statistics. One flyer was tailored to Black people and the other to Hispanic people. Both flyers also had information about screening methods for breast cancer, colorectal cancer, cervical cancer, and prostate cancer. The flyers were distributed at the events planned for Minority Cancer Awareness Week, April 19th-April 26th. At the April 19th event, located at the Breast Examination Center of Harlem, the intern from the Patient and Caregiver Education Department distributed the flyers and conducted a conversational knowledge uptake evaluation with community members.

**Outcomes/Results:** Twenty-three people were surveyed, including 4 men and 19 women. Age, race, and ethnicity were not identified for each individual. While 78% of people did not know that cancer was the 2nd leading cause of death in Black people, 65% of people did have a previous understanding about breast cancer in Black women. Similarly, 86% of people did not know that cancer was the leading cause of death in Hispanics, while 78% of people had a previous understanding of breast cancer in Hispanic women.

**Evaluation/Conclusion:** Overall, the event and flyers were successful. Most people gained knowledge they did not have prior to receiving the flyers. Participants believed that lung cancer rates in Hispanic people were higher, that cancer would be lower than the second leading cause of death in Black people, and they were not surprised by the breast cancer facts in either Blacks or Hispanics. Participants would have liked to see more information about genetic components, choice of treatment rates in Blacks versus Hispanics, death rates for specific cancer types, and screening rates for specific cancer types.

Title: The Significance of the Public Health Responsibility in Promoting the effects

Alcohol Abuse in the West Caldwell communal population

Name: Samantha Bross

Preceptors: Inya Chehade, CEO; Debbie Micchelli Administrative Director

**Agency:** The Bridge Inc.

**Purpose:** The Bridge Organization identifies one of the necessities in our community of West Caldwell is addiction treatment programs and counseling for people with mental health concerns. This discovery is constant with discoveries in the overall population of The United States that there are neglected prospects for health promotion involvement in the alcohol extraction in the outpatient cliental population.

**Significance**: The consumption of an excessive amount of alcohol in a short period of time could lead to alcohol poisoning and numerous other health risks as well. It can result to inadvertent grievances. If the occasion to strengthen an overall healthier population occurs, it is compulsory to make a positive change in that community. The hardships of alcohol abuse can be addressed with persistent motivational counseling sessions to prepare clients for discharge. With these readmissions of clients there is a great possibility that relapses may lessen. The ambition is to offer the clients the support they need, rather than delivering treatment and discharging them without tackling the fundamental controversies of abusing the consumption, again.

**Method/Approach**: First a reflective survey was performed of adequate outpatients from January 2017 to March 2017 centered on the alcohol misuse and dependence International Statistical Classification of Diseases and Related Health Problems analytical codes. The survey distributed a 10-question test derived from the World Health Organization projected to determine if a person may be at risk for alcohol abuse problems. The results discovered that there are clients that are candidates at risk of relapsing. This began incentive evaluations for clients, to grant them support after discharge.

**Outcomes/Results:** Of the sample size cohort (n=50), 9 women 18%, 14 men 28%, stated they would try alcohol again after discharge. 6 women 12%, 2 men 4%, stated that they would never sip an ounce of alcohol again after discharge. 4 woman 8%, 4 men 8%, stated after discharge it would be ok to have one drink. 3 women 6%, 4 men 8%, stated they would try medication for alcohol dependence. Finally, 3 women 6%, 1 man 2% stated they will continue to attend counseling sessions because they feel it is helpful towards recovery.

**Evaluation/Conclusion**: Starting in 2018 the involvement of more motivational counseling sessions will occur. Since the analytic chart review it is conquered that our previous outpatient program with alcoholuse problems are a very diverse group of individuals. It is expected to see similar results when analyzing the group that will receive a more supportive based program upon discharge. It was suggested by the organization to collect the same data in the near future to compare results.

**Title:** To examine the effectiveness of The Empty Chair Campaign

Name: Ria Brumant

**Preceptors:** Laura Luciano, Interim Director

**Agency:** Office of Violence Prevention and Victim Assistance,

Rutgers University- New Brunswick

**Purpose:** To raise awareness concerning the prevalence of dating violence, sexual assault, stalking and other types of interpersonal violence as well as educating students on how to stay involved in this issue in the Rutgers community.

**Significance:** According to researchers, women in college ages 18 to 24 are 3 times more at risk of sexual violence. When it comes to domestic violence, "21% of college students report having experienced dating violence by a current partner and 32% experienced dating violence by a previous partner." Individuals who are 18 to 24 years experience the highest rate of stalking, including in person or through technology. Everyday a college student is being affected and VPVA is using its resources to help the students of Rutgers.

**Method/Approach:** To accomplish The Empty Chair Campaign, planning included advertising, with tabling around all Rutgers campuses. During tabling, students were told the significance of the purple chair. The chair symbolized a victim, who would not be on campus with fictional accounts of interpersonal violence. The students also played a game called "Wheel of Facts" to learn a statistic and win a prize. The students received two brochures on the services that VPVA offers and on The Empty Chair campaign with resources on how to stay involved in their community. During the week 10 organizations and 12 students took a chair for the week to class or meetings, with the fictional accounts, and the brochures. At the end they had to complete a feedback sheet asking how many students were in the class or meetings, who knew about the campaign and who voluntarily went up to the chair.

**Outcomes/Results:** A total of 898 participants learned and read about the "The Empty Chair Campaign". During tabling 17% of participants came up to the tables. 58% of the students and 25% of organizations participants were told about "The Empty Chair Campaign." From tabling 89 participants went up to the chair to read the fictional story. 120 students and 33 of organizations participants went up to the chair to read the fictional story. From tabling only 30 participants, 45 students from classes, and 20 participants from the organizations knew about the campaign compared to those who did not. A total of 700 brochures were taken and 71 prizes with information on vpva was taken.

**Evaluation/Conclusion:** There is a need to increase awareness. The future outlook for The Empty Chair Campaign could include workshops and educational programs. VPVA offers numerous programs and having better advertising would be helpful and working closer with the organizations.

**Title:** Improving Efficiency for Findings Student Records

Name: Angelique Burgos

**Preceptors:** Direct Supervisor: Eva Kucaba

Project Supervisor: Rose Robateau, School Nurse

**Agency:** Perth Amboy Board of Education

**Purpose:** To compare electronic and paper immunization record keeping methods.

**Significance:** This project aims to identify the most time efficient way of documenting student immunization records. Currently there are 1478 transfer students and 65 new students this year. Over the past few years there has been an increase of 70% transfers, with this year being the most so far. Any records obtained from another country must be comparable to U.S. recommendations and must be in written form. Many records come incomplete unobtainable. This project compared a new electronic form to the paper record keeping to determine if electronic records are more efficient. Each student has their own file which is kept in the nurse's office where data is then transferred onto a spreadsheet. The paper forms may become confusing with cross-outs, highlights and handwritten notes.

**Method/Approach:** An electronic questionnaire was created to collect student records. This was compared to the amount of time to input student information on the paper form. A comparison was then made between the two methods for retrieving data.

**Outcomes/Results:** Of the sample, 10 files handwritten took an average of 10 minutes to record total compared to an average of 6 minutes it did for completing the electronic questionnaire. Then, 30 files were searched, process A and B (15 each time) using the electronic form and files stored in the nurse's office. It took an average of 15 seconds to find a student using the electronic format and 50 seconds searching for the paper records in the office.

**Evaluation/Conclusion:** Electronic based process will minimize time, errors and increase efficiency. Other factors that contribute to these findings are the completion of each file. Some students may have all of their immunizations making it faster to document, while others may not have certain ones or were improperly given vaccines. In the future when all records become electronically filed, they may need to be FERPA regulated and training for the new process will be needed for nursing staff.

**Title:** 30-Day Behavioral Health Inpatient Readmissions Assessment

Name: Shannon Burke

**Preceptor:** Project & Direct Supervisor: Christine E. Skotzko, MD, FAPM - Medical Director

**Agency:** Hunterdon Behavioral Health

**Purpose:** To analyze and determine the underlying factors contributing to unnecessary psychiatric readmissions within thirty days of discharge, in order to reduce avoidably high readmission rates.

**Significance:** One in every four adults in the United States has or will be faced with some form of mental or substance abuse affliction, and many of those adults will be hospitalized. Hospitalization due to behavioral issues are increasing so dramatically that it has surpassed the rate of hospitalization due to other common causes, like injury, surgical, or maternal for example. According to the Agency for Healthcare Research and Quality, hospitalizations within thirty days post discharge, depicts a negative clinical aftereffect for the patient, may represent problems adhering to medication compliance and aftercare, and put a strain on minimal health care assets (2015). Frequent behavioral health hospital readmissions have been deliberated in detail. Nevertheless, information surrounding environmental effects and linkage to healthcare systems relating to unnecessary readmissions shortly after discharge are limited. Surveying patients and conducting analysis will aid in seeking to understand the underlying factors associated with the growing rate of behavioral health hospital readmissions.

**Method/Approach:** A questionnaire was developed and patients that were readmitted to the inpatient facility within ninety days of their previous discharge date were interviewed. Patients ages ranged from 18 to 82. The questionnaire included sections based on demographics, medication compliance, support in the community, care and treatment involvement, diagnosis, and aftercare prior to re-hospitalization. The interview process allowed for a one on one approach directly with the patient, where personal feedback was also collected. Following each interview, data were placed into a spreadsheet and analysis were ran accordingly. Medical records were also reviewed for purposes of background information.

**Outcomes/Results:** Based on the current sample (N=37), 92% of patients are Caucasian, 78% reside in Hunterdon County, 54% are male, 76% are unemployed, and 70% have a family history of behavioral health issues. 97% of patients take medications, 86% are able to afford them, 26% do not take their medications as directed, and 44% did not keep their follow-up appointments. 70% of patients have been to facilities aside from Hunterdon and 84% sought aftercare. In reference to diagnosis, 38% were admitted for mental health reasons, 16% for addiction, and 46% for a combination of both.

**Evaluation/Conclusion:** Close to half of patients do not keep their follow-up appointments and over one fourth of patients do not take their medications as directed, these are gaps in the transition of care that needs to be addressed. A care transition intervention (CTI) may be beneficial in encouraging patients to improve navigation methods in their own personal care post discharge.

**Title:** Athlete's & Mental Health

Name: Priya Butani

**Preceptors:** Francesca Maresca, Director of (H.O.P.E.)

**Agency:** Rutgers Health Services: Health Outreach Promotion and Education (H.O.P.E.)

**Purpose:** To provide Rutgers University athletic teams with the Myth & Stigma workshop. It will identify barriers to accessing care, decrease negative stigma on mental health, and help student athletes.

**Significance:** Mental illnesses are conditions that disrupt a person's thinking, feeling, mood, ability to relate to others, and daily functioning. In 2013, Chief Medical Officer of the NCAA stated that mental health was the #1 health and safety concern for student athletes. Poor mental health can negatively impact athletic performance. A recent survey of 21,000 NCAA athletes found an increase in students reporting mental health problems. Unlike sports related injuries, mental health illnesses such as eating disorders, depression, and severe anxiety are often unrecognized, not acknowledged and untreated (Nguyen, Escamilla, & Nious, 2017).

Method/Approach: Working collaboratively with Counseling, Alcohol and Other Drug Assistance Program and Psychiatric Services (CAPS), the Athletics Psychologist and Health Outreach, Promotion and Education (HOPE), the Myth & Stigma of Mental Health workshop was adapted specifically to address the unique needs of athletes. The workshop was then made available to all Rutgers Athletic Teams. An Athlete Mental Health Participant Evaluation was developed to be administered at the end of each workshop. Student athletes completed the survey which included both pre- and post- test items. Designed to measure knowledge and attitudes as well as awareness of existing resources on campus and their willingness to access help.

**Outcomes/Results:** Based off the evaluation, a majority of student athletes had rated their knowledge on mental health between 2-4. The evaluation also included demographic information such as year in school which may shed light on athletes knowledge at different points in time at Rutgers University. Most of the student athletes were freshmen and sophomores. After the program and workshop was implemented, there was an overwhelming response rate that ranged between 4-5 on the evaluation.

**Evaluation/Conclusion:** The evaluation conducted before the workshop revealed that the student athletes only had a general idea about mental health. The responses correlated with the year that students were in, revealing that the difficult changes for younger athletes makes them more vulnerable. A majority of the students had felt confident in their knowledge on mental health after the workshop was implemented. Responses showed the student athletes' eagerness to learn more, indicating the workshop was a success.

References: https://docs.google.com/document/d/1h348FK\_Oy5ZvxPgrmWYIY9OIhdu7JCfifrgj4uNijXE/edit?usp=sharing

**Title:** Effect of Outreach and Training About PURPLE Crying for Parents

Name: Annelore Bwire

**Preceptors:** Direct Supervisor: Stephanie Michael, Community Education Coordinator

**Agency:** Prevent Child Abuse New Jersey

**Purpose:** To analyze the effect the Period of PURPLE Crying program has on new parents' confidence and knowledge about their baby.

**Significance:** Abusive head trauma, also known as Shaken Baby Syndrome, is one of the leading causes of death among children younger than a year (Reese, Heiden, Kim, Yang, 2017). Crying is the number one cause of shaking babies (Prevent Child Abuse-New Jersey, 2016). The Period of PURPLE Crying refers to the period from 2 weeks to about 3 to 4 months of age during which infants cry uncontrollably and resist soothing. The program is a parent education program which attempts to educate parents about this phase of development. It is designed to educate new parents about the severe stress that a baby's crying can bring and also suggests ways to cope with this stress.

**Method/Approach:** Parents who give birth in a hospital which participates in the PURPLE program receive education from a nurse, watch the PURPLE DVD, and receive a PURPLE kit which includes a DVD and booklet. A survey was administered by nursing staff to assess newborn's parents experience with the Period of PURPLE Crying education. Parents provided feedback after watching the video. The survey asks parents to rate their knowledge about the Period of PURPLE Crying before and after receiving the education. Data for 41 parents was exported to Excel.

**Outcomes/Results:** Of the sample size cohort (n=41), 41 parents (100%) received the PURPLE DVD and booklet to take home. Of those parents, 37 (90%) talked to a nurse about the Period of PURPLE Crying for an average of 10 minutes. Thirty-two (78%) said they would share the information learned with others who take care of their infant. Prior to receiving Period of PURPLE Crying information, 27 (67%) indicated that they had little, no, or only some knowledge about newborn crying, but after, 38 (93%) indicated that they had average or a lot of knowledge on the subject.

**Evaluation/Conclusion:** By collecting feedback, the Period of PURPLE Crying program can continuously be improved and revised. Overall, there is a positive response from parents, whose knowledge of the subject significantly increases after receiving the information. Some barriers include the fact that the parents might not share this information with others who might care for their newborn. Talking about the Period of PURPLE Crying with a caregiver can make newborn's parents feel judged by others, or feel that they will scare away their caregivers (Hennink-Kaminski & Dougall, 2009).

Title: Transforming Education in the Workplace to Meet the Needs of Pediatric Nurses

Name: Shantise Byron

Preceptors: Claudia E. Carron, MSN, RN, Clinical Nurse Educator, Patient Care Adm.

**Agency:** PSE&G Children's Specialized Hospital (CSH)

**Purpose:** To evaluate nursing education, examine areas of improvement in existing curriculum, training, and orientation practices, and develop approaches to successfully prepare nurses, retain nurses and increase employee morale.

**Significance:** A career in nursing has been eye-catching due to it's "excellent job prospects, a wide range of areas to specialize in, and strong salaries (Careers in Nursing, 2017). However, according to the RWJ Foundation, "nearly 20% of nurses leave the profession entirely during their first year" (as cited by Tyler Grote, 2015). A potential solution might include a successful orientation program that sets the foundation of enculturation into an organization and the necessary support employees will need to thrive. The implementation of a comprehensive orientation and training has been proven to retain up to 58% of employees for at least three years which is positively correlated to improved quality of care and better patient outcomes (Jeffery & Jarvis, 2014). Action to address the educational needs of nurses in the workplace can improve the retention rate of nurses and provide the necessary resources to help them succeed in their careers.

**Method/Approach:** To better meet the needs of new hires, an improvement initiative was suggested with use of the ADDIE model (Analyze, Design, Development, Implement, Evaluate). To initiate this project, a preliminary assessment was conducted to analyze the needs of the new nursing hires at CSH. Three areas of improvement were identified which includes (1) improve the organization and standardization of nursing competencies, (2) keep accurate documentation of dates for followups and evaluations to better track educational needs and progress, and (3) implement interactive components to orientation to vivaciously present nursing education relevant to the facility. A secondary assessment in the form of a questionnaire was sent via email to new nursing hires to gain feedback on the new changes.

**Outcomes/Results:** The secondary assessment was requested through email and recorded by Google Forms anonymously. New hires from 2016-2017 and who were still employed at CSH (N=33) were surveyed. They were asked 5 multiple choice questions and 2 open ended. Of the sample size (N=34), answers were received from 14 nursing staff. When asked if the orientation met their expectations, 71.4% agreed and 28.6% strongly agreed. When asked if they thought CSH has the ability to provide a rewarding and fulfilling career, 42.9% agreed and 57.1% strongly agreed.

**Evaluation/Conclusion:** By reconstructing the onboarding process of new nursing hires, Children's Specialized hospital aims to better meet the needs of new hires and to aid in a successful nursing career. This will not only improve employee morale but more importantly, it will improve the quality of healthcare administered to patients.

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Title: Creating Awareness About Sexual Assault Through Denim Day

Name: Genevieve Caputo

**Preceptors:** Laura Luciano, Interim Director

**Agency:** The Office for Violence Prevention and Victim Assistance (VPVA)

**Purpose:** To educate and create awareness of sexual assault through the event, Denim Day, and evaluate the effectiveness of this type of outreach within the Rutgers community.

**Significance:** In 1997, an 18 year old girl was raped by her driving instructor. The Italian Supreme Court decided not to convict the instructor of rape, because the girl had to have helped him remove her tight jeans, therefore consenting to sex. The women of the Italian Parliament protested this decision by wearing jeans to work the next day. By 1998, Denim Day became an annual event. 1 and 5 women and 1 and 33 men will be victims of sexual assault in their lifetime. Sexual Assault is the second most common violent crime committed on college campuses, and around 16% of victims report their assault. These statistics indicates a gap in students understanding of sexual assault and how severe it is on campus. It also highlights the importance of educating students on how consent has nothing to do with what one wears.

Method/Approach: Educating and creating awareness is the most important goal of Denim Day. Advertising will begin at VPVA tabling events, a Facebook event will be created, and flyers will be posted in student centers. On Denim Day, students will wear denim in support of Denim Day's history. At night, there will be a fashion show, and a Denim Day tabling event before and after the fashion show. At the fashion show, organized by RUPA, NO MORE, and VPVA, students, faculty and staff will either model or perform poetry or music. The tabling event will have a spin wheel to learn sexual assault statistics, give away VPVA branded prizes, and resources on VPVA services. Through Denim Day, we hope to educate students on sexual assault, consent, and its prevalence on campus.

**Outcomes/Results:** The addition of the Denim Day Fashion Show increased the visibility of the event. At least 60 people came up to the tabling event, approximately 80 VPVA branded prizes and VPVA resources were taken, and roughly 140 people attended the Denim Day Fashion show. There were 34 models or performers who represented survivors, advocates, and supporters, through the clothing they chose to wear. Denim or Denim Day pins were worn by around 120 people who attended the event.

**Evaluation/Conclusion:** In comparison to last years Denim Day event, the creation of the Denim Day Fashion Show, with three well known Rutgers organizations, was a huge success. Having the Fashion Show and tabling, brought people directly in contact with survivors and their experiences. Also, having a large presence at the Fashion Show allowed for more people to take VPVA branded prizes.

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Title: Recruitment and Retention of Quality Staff in the Long-Term Care Industry

Name: Isabella Cerri

**Preceptors:** Leanne Fiet, Administrator & Lisa Slater, Director of Education

**Agency:** Francis E. Parker Memorial Home, Parker at Monroe

**Purpose:** To investigate innovative ways to attract quality employees to work in the long-term care field, and propose strategies that encourage employee retention.

**Significance:** Parker at Monroe was established recently and has had difficulty creating a foundation of quality employees to provide care to the elders. Employee turnover is very high, in spite of the competitive pay and benefits available to workers. Certified Nurse's Aides (CNAs) have especially high turnover because they are working for multiple facilities, and may not be fully committed to their position at Parker. Turnover of direct care workers increases the organization's direct costs in overtime for other employees, recruitment/advertising, and training new employees, as well as the indirect costs associated with poorer quality of care for the elders (Mukamel et al. 2009). This facility must appeal to new job applicants by strengthening employment advertising. Parker at Monroe needs employees that will contribute to the seamless operation of the community.

**Method/Approach:** Analysis of existing demographic data of current and terminated employees was used to determine patterns in recruitment and retention. Data were organized to determine the positions of high turnover and the most common counties from which those employees live. Current CNAs were interviewed to gain an understanding of where they come from, and why they applied to work here, in order to understand what PAM can do to attract applicants. To improve job advertising, a flyer was created to use in locations that were determined as targets for CNA recruitment.

**Outcomes/Results:** The position with highest turnover is Resident Attendant (CNA), with a 72% turnover rate. Additional analysis of turnover by location disclosed that 69% of the current and 65.3% of the terminated Resident Attendants were from Middlesex and Mercer county, including areas of lower socioeconomic status, such as New Brunswick and Trenton. The prime locations to post the job flyer were in CNA schools in Middlesex and Mercer, newspaper ads including the Asbury Park Press, and career service pages for community colleges.

**Evaluation/Conclusion:** Most of the long-term care industry's employee recruitment and retention issues occur in the CNA positions, because the work is strenuous and the compensation is sometimes unsatisfying. Proposal of recruitment/retention strategies will help Parker stand out to CNAs, so that they feel that their work is appreciated and rewarding, and will encourage more employees to work long-term. A proposal of job advertisement methods was created for future reference of the HR department. Evaluation of how the program strategies will improve scheduling, education and quality of care for PAM over the next several years is to be determined.

**Title:** Public Health Program Development and Research Associate

Name: Apoorva Chaloori

**Preceptors:** Direct Supervisor: Sasha Taner, Associate Director of the Leadership Scholars Program

And Multimedia Research Initiatives

**Agency:** Institute for Women's Leadership

**Purpose:** To develop a public health internship program for the summer of 2017 with the Institute For Women's Leadership through networking, brainstorming and marketing.

**Significance:** The topic of women empowerment is currently a pressing national, as well as, global debate. The idea of women empowerment kindles a magnitude of discussions all with varying opinions. The World Bank (2008) has defined empowerment as "the process of enhancing capabilities and capacity of social groups and individuals to make choices and to transform those choices into desired actions and outcomes." This is what the Community, Leadership, Action and Service Program (CLASP) aims to achieve.

**Method/Approach:** A list of students, who are graduating between 2018-2021, was generated. The application pool was filtered by past and current interest in the program and their fields of study. Therefore, the Public Health department and the Women and Gender Studies departments were established as a main priority. Several emails have been drafted, each uniquely tailored towards a specific group of students and several email blasts have sent to the appropriate groups of students. Top applicants have been selected and matched with an appropriate internship site. A list of prospective internship sites has been created and an email was sent to the respective contact of the sites. For the sites who expressed interest, meetings and site visits have been scheduled. This helped with matching the appropriate applicants to the internship site because the site visits allowed us to identify the proper skillset needed.

**Outcomes/Results:** An email blast has been sent to a total of 356 students. Out of those 356, a total of 42 (~11.79%) students have sent in an application. Due to unforeseen circumstances, two applicants dropped out of the program before the selection process, leaving the program with 40 applicants. Out of the 40 applicants, between 12-15 (~28.5%-35.71%) students will be selected for for the program. The top majors who applied were: 9 Public Health Majors (~22.5%), 5 Political Science Majors (~12.5%), and 4 Journalism and Media Study Majors (~10%). Women and Gender Studies, English, Math and Finance majors all had 3 applicants each (~7.5%). An email was sent out to a total of 14 internship sites. Five sites (~35.7%) have accepted to collaborate with us this summer, whereas nine sites (~64.3%) either did not respond to our offer, has declined our offer or the offer is still pending.

**Evaluation/Conclusion:** Less than half of the applicants (n=356, 11.79%), have expressed interest in the Institute for Women Leadership's CLASP program. But, there are double the people who applied than we are going to accept.

Title: Rutgers Greek Life Involvement in New Brunswick Ciclovia

Name: Bethany Chan

**Preceptors:** Internship Coordinator: Yesenia Medina-Hernandez

**Agency:** RWJBH Community Health Promotions Program

**Purpose:** To get more Rutgers Greek life involvement in New Brunswick Ciclovia, whether it be volunteering or tabling.

**Significance:** NB Ciclovia - a free, citywide initiative that closes the streets to cars and opens them to people – promotes healthy active living through experiencing New Brunswick's vitality, livability, and diversity in a safe place for people to exercise and play. During Ciclovia, the streets become temporarily car-free for 5 hours for families to run, walk, skate, ride bikes, enjoy active events along the route, and explore the city streets (nbactive.com). Getting RU Greek life to be more involved in New Brunswick community events, such as NB Ciclovia, will allow people to see that different kinds of communities work together to spread awareness and healthy living. With the help of fraternities and sororities, more of the college community could get engaged as well because this event is not just meant for the residents of New Brunswick. The RU Greek community could help those participating in NB Ciclovia by encouraging and motivating them. Because of the large variety of Greek organizations, each one can help in a different way, especially if they are specialized in a specific area.

**Method/Approach:** In getting RU Greek life to be more involved in NB Ciclovia, pre-assessment surveys were sent to different Greek organizations, both panhellenic and multicultural Greek council, to see how much knowledge or awareness they have of the event. After Ciclovia, post-assessments will be sent out to fill out afterwards as well to see if there has been an improvement or an increase in interest.

**Outcomes/Results:** Before Ciclovia, about 54% of the Rutgers Greek community that took the preassessment had said that they had heard of Ciclovia, but only knew a little bit about it. Approximately 46% had not heard of Ciclovia. This survey was sent out to both panhellenic and Multicultural Greek Council organizations. After Ciclovia on Sunday, April 23, a post-assessment has been sent out, surveying how organizations participated and how Ciclovia should be better advertised. Research thus far has revealed that mostly the Latino organizations were most involved in Ciclovia.

**Evaluation/Conclusion:** Overall, there has been a positive impact of the RU Greek community being involved in Ciclovia, even if it was the slightest impact on the participants of this open-streets event. It has been encouraging to see some of the college community come out to be engaged with the New Brunswick area. Ciclovia happens about three times a year - once in the spring, summer, and winter. This active-living event has occurred for three years now. However, this event still does not seem to have much awareness. Better ways to get more word out about Ciclovia in the future are possibly more frequent social media posts from Rutgers about it, canvassing other campuses, and word of mouth.

**Title:** Improving Job Satisfaction with Adequate Nurse Staffing Schedules

Name: Amy Chang

**Preceptors:** Direct Supervisor - Kelly Keefe-Marcoux - Associate Chief Nursing Officer & Section

Chief, Advanced Practice Nursing

**Agency:** Children's Specialized Hospital

**Purpose:** To create a master nursing schedule template based on an average daily census for both patient care units. This can ensure a consistent number of nurses based on the patient census. Adequate nurse staffing is one component of ensuring job satisfaction.

**Significance:** In a study conducted by Aiken, et al. (2001), an increase in the number of patients assigned to each nurse, while adjusting for nurse or patient and hospital characteristics, causes a 23% increase in job burnout and a 15% increase in job dissatisfaction. I would assume that a master nursing schedule template with adequate patient to nurse staffing levels may lead to a decrease in job dissatisfaction and a decrease in job burnout.

**Method/Approach:** A review of the article "Hospital Nurse Staffing and Patient Mortality, Nurse Burnout, and Job Dissatisfaction" by Aiken, et al. (2001) was conducted. A review of hospital-specific staffing guidelines was conducted and incorporated into the master nursing schedule. The master nursing schedule was then developed with an adequate patient to nurse ratio throughout all shifts. At Children's Specialized Hospital, it is recognized that developing a set staffing template will provide more consistent adherence to their staffing guidelines.

Outcomes/Results: "Hospital Nurse Staffing and Patient Mortality, Nurse Burnout, and Job Dissatisfaction" (Aiken, et al. (2001)) was analyzed in this review. The study illustrated in their results that there is a positive relationship between adequate staffing levels and an increase in job satisfaction. According to the preliminary findings, I can assume that Children's Specialized Hospital may benefit from introducing a master nursing schedule, with safe patient to nurse ratios, to support their adherence to adequate staffing at all times in order to improve job satisfaction.

**Evaluation/Conclusion:** Although there are many studies that support adequate staffing, there are many limitations within the literature as well. The limitations in Aiken's, et al. (2001) article include a potential for response bias since there is only a 52% response rate. In order to prevent this limitation, future research should include longitudinal data sets. This will avoid the possibility that inadequate staffing is the result, rather than the reason, for a decrease in nursing job satisfaction (Aiken, et al. (2001)). Children's Specialized Hospital is currently working on a master nursing schedule that will reflect adequate staffing. Once the schedule is implemented with longitudinal data sets, the outcomes may help to provide evidence about adequate nursing staff and its effects on job satisfaction.

**Title:** Pediatric Transgender Health Education Initiative

Name: Camille Charles

Preceptors: Direct Supervisor: Gloria Bachmann, MD, Director of WHI

Project Supervisor: Dr. Ian Marshall, MD, Pediatric Endocrinologist

**Agency:** Women's Health Institute (WHI) at Rutgers Robert Wood Johnson Medical School

**Purpose:** To attain approval to collect survey feedback on the effectiveness and approachability of two educational videos, for transgender patients and their families about hormonal affirmation treatment.

**Significance:** In the state of New Jersey, there are believed to be more than 30,000 individuals who identify as transgender. A fraction of these 20,000 are gender-variant adolescents. Transgender youth face a health disparity because of the lack of comprehensive educational resources available to patients and their families, throughout their journey to gender harmony. The Journal of Clinical Endocrinology & Metabolism emphasizes that the current available resources about transgender health are complex and potentially difficult to understand for adolescents (Hembree et al., 2009). The Robert Wood Johnson Medical School's Transgender Health Initiative seeks to evaluate two educational videos on hormonal affirmation treatment, in order to improve the health literacy and dialogue between the medical community, pediatric patients and their families.

**Approach:** A protocol was drafted to evaluate two videos, intended for transgender youth and their families created with Powtoon, a cartoon-based video software. There are two videos which describe hormonal affirmation treatment for MTF (male to female) and for FTM (female to male). This pediatric transgender health education study includes a survey which investigates if the videos have an age-appropriate literacy level for youth, positive tone and educational value. The project titled, Transgender Health Education Initiative, a non-interventional research protocol was submitted to be reviewed by the Rutgers Institutional Review Board, Women's Health Institute and Child Health Institute.

**Outcomes:** The Pediatric Transgender Health Education Initiative was approved by the departments of Child Health Institute, Women's Health Institute and the Rutgers Institutional Review Board (IRB). The Pediatric Transgender Health Education Initiative will commence in summer of 2017. The participants will include over 40 participating pediatric patients and their families. The survey will ask various rating scale questions to reveal a more meaningful understanding about educational videos from pediatric patients and parental perspectives through quantitative feedback.

**Conclusion:** The study will be evaluated by analyzing completed surveys. Through the identification of the surveys conclusions, the findings from this study will be published through Rutgers Robert Wood Johnson Medical School.

Title: Creating a LINCS Database for Urgent Care, Walk-In Clinics, and Emergency

Medicine Facilities within Middlesex County

Name: Megan Choinacki

**Preceptor:** Carrie Johnson, LINCS Coordinator

**Agency:** Middlesex County Office of Health Services

**Purpose:** Create a database for the Local Information Network and Communication System (LINCS) program to educate staff working on emergency medicine facilities in Middlesex County and collect LINCS invitation response rates for each facility type.

**Significance:** The number of urgent care and emergency medicine centers have largely increased over the last few years, which offers residents an alternative to a more costly emergency room visit. The Middlesex County LINCS is part of a State-wide Emergency Notification System that informs residents of communicable disease outbreaks by communicating with physicians, hospitals, care centers, and other medical facilities. Having a partnership of communication will allow the health department to timely and effectively distribute health information to health providers, patients, and residents.

**Method/Approach:** A database of 82 facilities within Middlesex County was created through internet research with key contact information. The facilities must meet a criteria of accepting walk-in patients, treating non-life-threatening injuries, and advertise as such. Each location was called to verify existence, address, and phone number. Each contact was sent information by mail that included a letter detailing the goal of the LINCS program and an application to enroll in the Notification System. They also received additional tools in the packet for reporting communicable diseases, consisting of a quick reference magnet, pocket reference guide, and tip card. Responses to the LINCS invitation were recorded.

Outcomes/Results: After the removal of facilities that are no longer existent or do not meet emergency medicine criteria, the initial database was condensed into 56 contacts. Of those contacts, 11 are emergency medicine facilities, 22 are urgent care centers, and 23 are walk-in clinics. Of the 56 packets mailed, 2 were sent back as undeliverable. Out of the emergency medicine facilities, 3 enrolled in LINCS. Out of the urgent care centers, 2 enrolled in LINCS. Out of the walk-in clinics, 3 enrolled in LINCS. Overall, there was a 14% response rate. Responses were accepted up to April 20, 2017, and more are expected over the next few months.

**Evaluation/Conclusion:** Emergency medicine information that is freely obtainable through the internet is not completely accurate. Some facilities advertised as "walk-in," but only accept walk-in patients during certain hours or for certain conditions. Additionally, some facilities advertise inaccurate hours on their websites, which can prolong health conditions by preventing the rapid care that patients look for. The significantly high number of facilities with incorrect or misleading information suggests that there could be a need for a more universal categorization of medical care facilities and the services they provide.

**Title:** Evaluating Opioid Use in Bridgewater Township

Name: Nick Choman

**Preceptors:** Chris Poulsen, Director of Health and Human Services

**Agency:** Bridgewater Department of Health and Human Services

**Purpose:** To analyze both the use and misuse of prescription opioids and heroin in the greater Bridgewater area and provide innovative resources for the various agencies in the township to use to combat the problem.

**Significance:** The opioid crisis in the United States has been gaining attention in recent years as more people have friends, family members or neighbors fall victim to crippling addiction or overdoses. The issue hits particularly close to home for those in New Jersey, where some 1,600 people died of drug overdoses in 2015, double the national rate. Specifically, it is believed 128,000 New Jersey citizens are addicted to heroin (Yi). While statistics are known, much is left to be discovered about the root of this addiction, methods of obtaining the drugs, and the profile of the average user.

**Method/Approach:** There is a two-pronged approach to this project. Formally, a survey was created and distributed throughout Somerset County via social media in order to determine what kind of people are using opioids and heroin in terms of community and school involvement, other drug use and demographics. Concurrently, information is being gathered by meeting with law enforcement, clinicians, and health boards in order to consolidate qualitative data from these previously unconnected sources. The results of the survey and testimonies from the aforementioned professionals will both complement and validate one another, becoming a valuable resource when finalized.

**Outcomes/Results:** The health professionals consulted for this project have provided a wealth of information. The core of the issue lies in physicians overprescribing opioid medications to relieve pain. In a matter of days, a person's body can become reliant on the drugs until addiction is achieved, at which point the individual seeks a cheaper alternative in the form of heroin. The investigation has also revealed some finer details, such as hotbeds for heroin and pipelines to the suburbs as well as certain compounds drug dealers are incorporating to make the heroin more addictive and dangerous. The survey revealed the majority of people can easily access opioids and of those who use, they are in their twenties, first used before they were 20, are not involved in the community, more likely to smoke marijuana, and have anxiety and/or signs of depression.

**Evaluation/Conclusion:** The investigation has confirmed that the issue begins with an overreliance on prescription painkillers, steadily progressing to overdosing in some cases. Moreover, opioid pills and heroin are becoming more available. Laws have recently been passed in New Jersey but more intimate knowledge of the crisis needs to be gained by policymakers, especially in the behavioral health realm and investigating exposure among adolescents, in order for more focused legislation to be integrated.

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Title: The Edward J. Bloustein School Website Remodel

Name: Izdihar Chowdhury

**Preceptors:** Alexandra Lopez, Assistant Teaching Professor

Amy E. Underhill Abruzzi, Undergraduate Public Health Program Coordinator

**Agency:** Edward J. Bloustein School of Planning and Public Policy

**Purpose:** To analyze the current web presence of The Bloustein School and propose new innovative ideas to make the website user friendly, intuitive, and effective.

**Significance:** This project is centered on refurbishing the Bloustein school website. This website is a virtual representation of The Bloustein School brand, and in part, the Rutgers brand itself. It is important to have a website that is user friendly, intuitive and effective, because this website is the first source of information for many. Not only is the website missing a lot of information for current students, it is not friendly for prospective students. There are no specialized tabs or sections for the prospective students, and the information for them is scarce and hard to find. Creating a website that is easy to navigate allows for a better user experience for both new and old students. The website does not cater to any demographic, because finding resources is hard not only for students, but for alumni, faculty, and future employers. Not only will redesigning the website improve the brand, it will also make it easier for users.

**Method/Approach:** The first step taken was an extensive assessment on how to make a website effective. Both scholarly resources and tech blogs were analyzed, and a list of what made an effective website was put together. The criteria was divided into two categories: website aesthetics and layout, and website content. The current website was dissected, and anything that did not pass the criteria was noted. Other items that could stand to be improved to meet the criteria was also noted. The websites of competing schools were looked upon and reviewed, and served as an inspiration board. Extensive reports were written on the subject matter and given to the higher ups. Some of the ideas included in this proposal was a better structured employer page that allowed for individualized job postings, and a more inclusive alumni network.

**Outcomes/Results:** This project ends in a presentation to the faculty of the Bloustein School. The presentation involves recommendations to a larger audience, with the hope the audience agrees with the changes presented. After that, the next stage is to implement these ideas into the website and to get a working website that reflects the research up and running. The new website will not only increase the school's credibility, but will serve as a space that houses information and resources pertaining to The Bloustein School.

**Evaluation/Conclusion:** Evaluation will occur when the website makes its internet debut. During the research stage of the project, student surveys were conducted in order to gauge the effectiveness of the website. Post-tests will be used to evaluate if the redesign fit the criteria of the intended goal- to make the website "effective, user friendly, and intuitive". If it is found that the website is not effective, user friendly, and intuitive, the appropriate changes will be made.

**Title:** Drop-In Rapid Result HIV Testing Pilot Program

Name: Junaynah Chowdhury

Preceptors: Supervisor: Francesca Maresca Ph.D., Director of Health Outreach, Promotion and

Education (HOPE)

**Agency:** Health Outreach, Promotion and Education (HOPE)

**Purpose:** To pilot weekly drop-in rapid result HIV testing at HOPE'S location.

**Significance:** Currently, there are about 850,000–950,000 people living in the United States with human immunodeficiency virus or HIV and one fourth of these people are unaware they are living with the virus. People who practice high risk behaviors such as sharing needles and having unprotected sex with multiple partners, having sex under the influence of alcohol and other drugs or having sex with someone of unknown HIV status, are at high risk for contracting HIV. It is imperative for people who engage in high risk behaviors to get tested for HIV. Evidence indicates that knowledge of one's HIV status leads to better health outcomes such as lower risk for transmitting the disease and longer life expectancy. The HIV Drop-In Testing program allows Rutgers students to have a free and accessible testing opportunity. The program provides rapid results (in 20 minutes) to the participants which allows students to be aware of their health status and obtain treatment faster.

**Method/Approach:** Prior to the testing, each participant completes a risk behavior profile which asks questions whether or not the participant has participated in high risk behaviors such as having unprotected sex, having sex with a person of unknown HIV status, having sex with multiple partners, etc. Following the testing, participants completed an evaluation of the testing experience. The evaluation asks 5 questions addressing the participant comfort, satisfaction and access to testing. The questions measure participants' feelings on a three-point scale that included answers such as not at all, somewhat or very. Participants could provide detailed comments on the accessibility and comfort of the testing, providing valuable information on potential improvements to testing.

**Outcomes/Results:** On average, 2-3 participants were tested weekly. In total, over the period of 10 weeks, 15 people were tested during HIV Drop-In hours. Of these 15 participants, 3 did not complete the evaluation. Out of the 12 who did, 10 felt satisfied with the program, 2 felt somewhat satisfied with the program. When it came to how comfortable participants felt with the testing, 10 felt very comfortable while 2 felt somewhat comfortable. Last, when it came to how accessible the participants felt the testing was, 10 felt it was very accessible while 2 felt it was somewhat accessible.

**Evaluation/Conclusion:** The majority of participants were satisfied with the HIV testing program. The most common feedback asked for a change in location and timing of the testing. For example, participants felt the testing should be changed to a student center and a different day and/or time. To improve this testing, the testing will most likely be moved to a different day and a later time.

Title: Identifying Obstacles to Resources through Community Health Assessment

Name: Tina Christmas

Preceptors: Dr. Atif Nazir, Health Officer, Project Director

**Agency:** Plainfield City Health Department

**Purpose:** To develop a community health assessment aimed at identifying health indicators and key elements that perpetuate the major public health concerns in Plainfield, New Jersey.

**Significance:** The Plainfield City Health Department is comprised of a team of public health professionals who evaluate the effectiveness, accessibility, and quality of health services (City of Plainfield, Health and Human Services). In July of 2016, the city of Plainfield, led by United Way of Greater Union County, was awarded a grant from the Robert Wood Johnson Foundation aimed at creating a culture of health. At the core of this project, Plainfield's Health Officer was tasked with completing a community health assessment—a profile to detail the demographics of the community, determine priority populations and identify relative needs. Ultimately, the goal is to implement sustainable health education programs in Plainfield that target these health concerns.

Method/Approach: Annually, reports consisting of national, state and county-level data are published and made accessible to the public. These reports consist of data on demographic and population changes, disease, crime, health behavior and economic factors. For the purpose of the community health assessment, the majority of these data reports were retrieved from New Jersey State Health Assessment Data (NJSHAD) and the U.S. Census Bureau, secondary data sources, and served as the foundation of the project. After careful review of the existing data, essential health indicators to be discussed in the health assessment included social and mental health, maternal and child health, death, illness and injury and infectious disease. By comparing Plainfield data to county-level and state numbers, disparities were easily identified and enabled the team to determine which health indicators require immediate attention.

Outcomes/Results: Data gathered for the community health assessment reflect high incidence of sexually transmitted infections. Although Plainfield only accounts for 9.2% of Union County's population, it accounts for 15% of all STD diagnoses. The data also shows high incidence of crime, with the number one cause of death for 15-44 year olds being homicide. Additionally, data reflects lack of access to healthcare services, as 28.5% of Plainfield residents are uninsured, exceeding county and state levels. Furthermore, the data identified demographic indicators, such as high poverty and unemployment rates, that may perpetuate these issues.

**Evaluation/Conclusion:** Identifying these health concerns enables the health department to present its findings to the grant project team. This health assessment will serve as a basis for future strategic plans and will allow the team to measure the success of any implemented health interventions targeted towards these indicators.

**Title:** Assessing Interest in a Metastatic Breast Cancer Program

Name: Kourtney Clark

**Preceptors:** Evelyn Robles-Rodriguez, RN, MSN, APN, AOCN

Director of Outreach, Prevention and Survivorship

**Agency:** MD Anderson Cancer Center at Cooper

**Purpose:** To assess the interest of women with metastatic breast cancer (MBC) in a new program at MD Anderson Cancer Center at Cooper, by introducing a new support group with an integrative medicine approach to the Camden underserved community and the more affluent Voorhees community.

**Significance:** MBC is breast cancer that spreads from the breast to other organs, most commonly bones, liver, lung, and brain. According to the American Cancer Society, there is not much data on MBC recurrences, only on the initial diagnosis of stage IV metastatic disease. It is reported that 6-10% of new breast cancer cases are metastatic at diagnosis, while the number of metastatic recurrences are estimated at 10-30% (ACS). There are few programs and support groups dedicated to MBC patients.

**Method/Approach:** Data were collected through EPIC to ascertain the number of MBC patients. Using EPIC and ICD 10 codes, a list of women with MBC was compiled. Currently at MDA Cooper, there are approximately 300 MBC patients. Oncology providers and patient navigators were asked to refer patients to the MBC program using flyers outlining planned education and activities. The MBC support group was launched in January 2017, in Camden and Voorhees, with funding from an Avon/Pfizer grant. Surveys were distributed to MBC program attendees for feedback to figure out barriers to care and needed improvements to better serve this population. Sixteen MBC participants returned the survey.

**Outcomes/Results:** Since launching the program in January, Voorhees has had 4-6 participants per meeting. Two of the three meetings at Camden had zero attendance. Feedback from this small sample group notes that the biggest worries of this population are stress management, emotional problems, body image concerns, fatigue and managing the effects of treatment. Least worrisome to them was legal concerns related to their illness. All participants had 100% satisfaction with the program, regardless of location, and most enjoyed the physical activity and group dynamic components.

**Evaluation/Conclusion:** MBC program participants have enjoyed the integrative medicine approach to the support group environment. It is uncertain why the Camden programs have not had attendance for the past two meetings. The original Camden attendees are Voorhees patients and are now attending the Voorhees meetings. Therefore, the interest and concerns of MBC Camden underserved patients still need to be determined.

**Title:** Common Physical Therapy Injuries Evaluation and Prevention

Name: Brian Colella

**Preceptors:** Rahul Nayak, DPT

**Agency:** Princeton Orthopaedic Associates

**Purpose:** To conduct surveys that will seek to identify common determinants of injury for patients of physical therapy and investigate prevention methods to improve future health outcomes.

**Significance:** With the adoption of the Affordable Care Act, an estimated 89.6% of the United States population will have health insurance between 2014 and 2025 (APTA, 2016). The increase in coverage and the aging American population increases the demand for physical therapists. With increasing numbers of patients seeing physical therapists and the Affordable Care Act's emphasis on value-based billing and quality care, it is important to understand the population that they are treating to identify common issues that can potentially be prevented. For example, according to the National Council on Aging, "falls result in more than 2.8 million injuries treated in emergency departments annually" (2017). By assessing the frequency of types of injuries seen in a specific facility, prevention methods will be identified to aid the therapists in educating patients.

**Method/Approach:** A questionnaire developed through evidence-based research identifies common areas of injury in patients. The questionnaire is directed towards patients, ages ranging from 12 to 78 years of age. The questionnaire aims to survey the type of injury experienced by patients: 1) Back and/or Neck, 2) Arm and/or Shoulder, 3) Leg and/or Knee, 4) Foot and/or Ankle, 5) Hand and/or Wrist, 6) Neck and/or Shoulder. Follow-up questions are utilized to better understand the cause of injury. Results seen on the surveys are compared to further evidence-based research by observing national statistics of common injuries in the United States.

**Outcomes/Results:** Of the sample size cohort (n=70), 39 patients (55.7%) experienced a Leg and/or Knee injury, 17 (24.3%) had a Arm and/or Shoulder injury, 4 (5.7%) had a Neck and/or Shoulder injury, 6 (8.6%) had a Back and/or Neck injury, and 4 (5.7%) had a Foot and/or Ankle injury. The mean age of respondents is 49 years of age. From the follow-up questions it has been found that 38% of the patients experienced sports-related injuries, 27% of patients experienced insidious onset for their injuries, 18% are from falls, 12% are work related injuries, 5% are from motor vehicle accidents.

**Evaluation/Conclusion:** Sports-related injuries proved to be the most common cause of injury (n=27, 38.5%). The average age of respondents with sports-related injuries is 43.4, which is 5.6 years younger than the mean age of all respondents. 80% of those that experienced sports-related injuries required surgery, a costly and time consuming recovery process. From this information, additional investigations identified common prevention methods that should be safely utilized by athletes to prevent the onset of injuries. The results of this data and the appropriate prevention methods are outlined in a pamphlet that will be used as a resource for patients of the physical therapy facility.

https://docs.google.com/a/scarletmail.rutgers.edu/document/d/1Conaxea2\_LknO-yu t9cFTQLuQ6cwnCx21yJM9czDRM/edit?usp=sharing

Title: Updating Logic Models Based On CDC Evidence-Based Strategies

Name: Jaime Cudmore

**Preceptors:** Magnolia Contreras, Director of Community Benefits

**Agency:** Dana-Farber Cancer Institute, Community Benefits Department, Brookline, MA

**Purpose:** To aid in the improvement of population health services by updating logic models based on evidence-based strategies for underprivileged and medically underserved neighborhoods in Boston through the Community Benefits Department at Dana-Farber.

**Significance:** The Community Benefits Department runs numerous cancer prevention, education and screening programs and services in Boston's neighborhoods. Programs bring awareness and education to colorectal cancer, skin cancer, breast health, tobacco cessation, smoking, public health and housing development partnerships and community partnerships. This year, the Community Benefits Department is implementing a new strategic plan and one of the goals is to update the programs they currently run to ensure they continue to be effective and evidence-based. The first step in updating these programs is to redo the logic models. In doing this, the department can get an idea of new goals and strategies to make sure these interventions are based on sound public health knowledge and research findings and that they continuously benefit community members.

**Method/Approach:** Research was conducted primarily through the Center for Disease Control and Prevention (CDC). Evidence-based practices implemented by the CDC were taken and applied to the population health services of the Community Benefits Department. Using these evidence-based best practice programs, it shows that the programs the CDC implemented are effective and have the potential to improve the department's programs. The department wanted to ensure that the practices currently in place were compatible with the CDC's recommended strategies.

**Outcomes/Results:** Out of the six logic models that were updated, the department currently only runs five of those programs (there is no ongoing colorectal cancer program). The majority of efforts put forth align with the CDC's recommendations. For example, the use of patient navigator and lay health advisors (LHA's) for the breast health program was not only a CDC recommendation, but something the department already promotes. There were small changes to be made, but there were no drastic differences in the CDC's programs and the department's programs. This shows the department is keeping up with the best strategies to educate individuals about cancer and the population health services.

**Evaluation/Conclusion:** The updated logic models will serve as the guidelines of the breast health, tobacco cessation, smoking, public health and housing development partnerships, community partnerships, skin cancer and colorectal cancer programs. This year a new strategic plan was implemented and by updating the models it will allow the department to stay on track with each program's goal.

**Title:** Community health, education, and income needs

Name: Tamara Curtis

**Preceptors:** Megan Kirschner, MPH, CHES Vice President of Community Impact

**Agency:** United Way of Greater Mercer County

**Purpose:** To conduct a needs assessment of Mercer County as it pertains to gaps or duplication in social services. The analysis and synthesis of the needs assessment will inform the strategic plan for United Way of Greater Mercer County.

**Significance:** According to County Health Rankings and Roadmaps, Mercer County's ranking changed from 13 to 14 out of 21 in overall health ranking from 2015 to 2016. The unemployment rate, health outcomes, and educational attainment rankings are worse than the top U.S performers, and New Jersey as a whole in the latter measurements. Adverse Childhood Experiences (ACEs) has a significant role in these findings. The number of victims of abuse or neglect increased by 24 percent from 2011 to 2014 in New Jersey. ACEs severely affect children's ability to learn, hindering future success. This evidence indicates a gap in services being provided to support children and families going through the aftermath of ACEs.

**Method/Approach:** A retrospective study of literature reviewed the effects of gaps in social services in Mercer County. A series of interviews and surveys were performed by community members to solicit input on their beliefs regarding gaps in social services. Children's health, education, and family income were all affected by the gaps in social services. Investigative obligation examined our surveys, literature findings, and personal interviews, and addressed 3 main results: 1) lack of affordable housing, 2) lack of job opportunities, 3) lack of access to basic needs for health benefits.

**Outcomes/Results:** Of the sample size in the survey, 12/15 believe the need for affordable housing and healthcare services are the biggest disparities in Mercer County. These participant views match closely to the issues found in the literature review. According to ACNJ, the number of families spending more than 30% of their income on housing increased by 2% from 2010 to 2014. Families uninsured increased from 13% to 15% from 2015 to 2016.

**Evaluation/Conclusion:** A majority of the community members (n=12, 80%) reported a need for affordable housing and access to affordable health resources from the sample size (n=15). There is a need for more affordable housing because people are spending over 30% of their income on their housing, leading to an increase in the uninsured, putting a great strain on families, leading to ACEs. From this needs assessment, recommendations are to shift to a focus on affordable housing, as well as trauma and ACEs to help children become resilient adults. Affordable housing, resilience building, and financial education programs will serve as effective strategies to (a) reduce the amount of families in poverty, (b) improve financial literacy, and (c) increase resiliency. Ongoing evaluation is necessary to ensure impact of the effectiveness of the new focus areas.

Title: STOP Act Grant Performance Assessment in Middlesex County

Name: Melisa Damcevska

**Preceptors:** Direct Supervisor: Ezra Helfand, Executive Director/CEO

Project Supervisor: Helen Varvi, Deputy Director

**Agency:** Wellspring Center for Prevention

**Purpose:** To evaluate changing community social norms and attitudes regarding underage drinking in three communities throughout Middlesex County.

**Significance:** Alcohol is the most widely used substance among youth in America. Youth between the ages of 12 and 20 consume 11% of all alcohol consumed in the United States, and 90% of this alcohol is consumed by binge drinking. Also, youth who begin drinking before the age of 15 are six times more likely to develop a dependence on alcohol than those who begin at or after 21 years of age. Parties and gatherings on private property have been identified as the primary source by which youth obtain alcohol. Beginning in 2000, New Jersey municipalities were given the option to implement private property ordinances, which made it unlawful for any person under legal age to possess or consume an alcoholic beverage on private property, in an attempt to reduce these rates (Coalition Strategic Plan).

**Method/Approach:** By comparing results of community surveys conducted by the Coalition for Healthy Communities, data from the 2017 PRIDE Survey - a questionnaire about student behavior, substance abuse, school climate and risk/protective factors - focus groups and alcohol trivia workshops conducted with students in three Middlesex County towns, any changes and/or increases in community norms, knowledge and attitudes will be evaluated.

Outcomes/Results:Town A successfully hosted a town hall meeting in which the students showed an increase in knowledge regarding underage drinking. Students in grades 9-12 participated in an alcohol trivia game and correctly answered trivia questions. In comparison to the Coalition for Healthy Communities (CHC) Surveys and 2017 PRIDE Surveys, students participating in focus groups in Towns B and C reported more community acceptance of underage drinking when asked about community norms. However, groups of students in both towns showed an increase in their own basic alcohol knowledge when given a second set of trivia questions later on. Though Town B has a private property ordinance, the students reported no enforcement or knowledge of it. Town C does not currently have a private property ordinance and students reported underage drinking was strongly embedded in community norms.

**Evaluation/Conclusion:** More work needs to be done in the creation and enforcement of private property ordinances to help shift community norms and increase knowledge and awareness about underage drinking. In Town A and B, more awareness about private property ordinances need to be generated by lawmakers, law enforcement and community leaders. Consequences for violations of the ordinances should be educational instead of punitive in order to be more effective in increasing knowledge and changing behaviors. In following with Town A, two student youth groups have been formed in Towns B and C in increase awareness, education and community action within the high schools.

**Title:** SWOT Analysis of Roosevelt Care Center

Name: Surbhi Dave

**Preceptor:** Frank Damiani, Administrator/Director of Patient Care Services

**Agency:** Roosevelt Care Center, Edison, NJ

**Purpose:** To conduct a SWOT analysis to assist an organization in improving patient care and financial outlooks.

Significance: Roosevelt Care Center is a skilled long term care (nursing) facility (LTC). According to National Center on Elder Abuse, most adverse events in nursing homes are attributed to allegations of inadequate treatment, understaffing and some of the variables that may be attributed to inferior care. These factors may play a large part as to why Medicare hospitals cost on "average \$2.8 billion per year" due to patients getting readmitted to hospitals (NCEA). In order to curb these costs, it becomes paramount for LTC facilities to maintain their residents within their complex and treat them accordingly. A SWOT analysis will be conducted in reviewing organization's financial and clinical issues, and impact of a unionized environment has on Health Care in LTC. A SWOT analysis will be done to outline the strengths, weaknesses, opportunities and threats impacting the organization. Organization will be viewed through a third party observer, an intern that may provide a fresh approach to the organization. After the SWOT analysis, the goal will be that the facility may adapt strategies and recommendations to improve financial and quality care of the organization.

**Method/Approach:** Roosevelt Care Center will use the SWOT analysis to evaluate if changes are necessary. Observation method and research based information will be used as an approach to perform this analysis. Research will be done on the website, financial budget, MDS data, STAR rating, QM rating, staffing levels, and clinical documents. Interview questions will be developed and interviews of the Director of Nursing, Director of Patient Care Services, staff and few residents will be taken to assess strengths and weaknesses of the organization. Also, the number of Medicaid and Medicare residents will be determined. After the intense clinical research and analysis of MDS Data and QM Measures, SWOT analysis will be conducted within the organization.

**Outcomes/Results:** The SWOT analysis was conducted using information from MDS Data, interviews, online resources, confidential documents and financial state budget. Results will be reviewed in the following three areas: quality of care, financial mix and expenses.

**Evaluation/Conclusion:** This SWOT analysis can be evaluated by the organization. The SWOT within the facility may assist in drawing attention to clinical and financial issues and possible recovery options that may improve the quality of patient life.

**Link for Citation:** <a href="https://docs.google.com/document/d/1V10yoPq0591TtYsU-6JXLJXS-pp72EhZF5irNJVIK-U/edit?usp=sharing">https://docs.google.com/document/d/1V10yoPq0591TtYsU-6JXLJXS-pp72EhZF5irNJVIK-U/edit?usp=sharing</a>

Title: Risk Assessment for Environmental Health - Analysis of a Textbook Revision

Name: Jason DeAlessi

**Preceptors:** Dr. Mark G. Robson, Distinguished Service Professor

**Agency:** Rutgers School of Environmental and Biological Sciences

**Purpose:** To analyze the future implications of a revised textbook on courses using the current version.

**Significance:** The College Board estimates the average student at a four-year university will spend over \$1,000 on textbooks this academic year (College Board). In 2013, the Huffington Post published an analysis of the price increase of textbooks and college tuition. While tuition has increased 559% in thirty years, textbooks have increased 812% over the same period (Kingkade). Students anecdotally complain about professors who require updated versions of textbooks which are higher priced than earlier editions. With the soaring cost of undergraduate education, it is clear that innovative policies are needed to help keep costs down, and textbooks are one possible place to start.

**Method/Approach:** The overarching goal of this project was determining if the revised textbook has a significant impact on students taking a class that uses the textbook. First, an analysis of the revision compared to the current version was done. Chapters were labeled changed or unchanged, and minor alterations, such as organization and term defining, were ignored to maintain simplicity. From here, the syllabi from 3 courses that utilize the textbook were analyzed. The total number of weeks in the course were compared to the number of weeks impacted by the revision. A week was considered impacted if the current version is currently used and the chapter(s) are changing or being deleted, and if the revised version contains a new chapter that could be used during the week.

**Outcomes/Results:** Of the three syllabi analyzed, an average of 40% of the weeks will be impacted by a revision to the textbook. The course at Rutgers will have the highest amount of change, since every week the class meets chapters from the current version are used and half of these chapters are changed. The other courses utilize the current version for fewer than half of classes, but it is possible new chapters in the revised textbook will lead to its usage for more than 50% of classes.

**Evaluation/Conclusion:** The discoveries in environmental health and expansion of regulatory agencies over the last decade have resulted in numerous changes that impact the teaching of risk assessment. These updates are encompassed in the revised version of *Risk Assessment for Environmental Health*. In conclusion, based on the average of 40% of weeks impacted by the revision, the revised version is necessary and will change students' understanding of risk assessment in environmental health. Further exploration could analyze additional syllabi and compare the results to other textbook revisions, attempting to make a holistic conclusion on the necessity of textbook revisions in public health.

References: <a href="http://bit.ly/2q2CmEi">http://bit.ly/2q2CmEi</a>

Title: Laboratory Workflow Improvement

Name: Matthew Della Bella

**Preceptors:** Charles Wilson, VP of Operations; Karen Shepherd, Director of Laboratory Outreach

**Agency:** Robert Wood Johnson University Hospital

**Purpose:** To implement a laboratory workflow protocol that will improve turnaround time.

**Significance:** Robert Wood Johnson University Hospital Laboratory Outreach Program supports four hospitals and thousands of patients from physician's offices all over the state. Recently turnaround times have lagged and there is little protocol to keep employees efficient in this area. These problems have significant impact on the clients whom consistently check the status of their specimens and get upset if the turnaround time is not up to par. By ensuring improved turnaround times client relations will improve giving Robert Wood Johnson more business and increased leverage in negotiations.

Method/Approach: The first step was collecting data that captured the time it took each specimen to go through the processes in the lab from drop-off to the beginning of the test. This data was accessed from two health information technology systems used by Robert Wood Johnson, Optimum and Cerner. The data that was analyzed consisted of the time the specimens were dropped off to the laboratory by the outreach courier, the time the specimens were registered and the time the test was ordered in the laboratory system, the time the specimens were brought to the microbiology department and the time the test was ran. The objective was to determine areas of waste in the process that delayed turnaround time. By comparing these times it was determined that the largest delay in turnaround times occurred when the specimens were being delivered to the microbiology department for testing. Once the data was collected, problematic and wasteful steps were identified. A staff in-service was created to streamline the entire outreach process. This in-service identifies areas of waste to make the process more LEAN, keeping all staff consistent and minimizing variability. A weekly audit was also implemented to ensure that progress was being made and maintained.

**Outcomes/Results:** The in-service was implemented the week of April 17, 2017 to 53 staff members. Results are pending.

**Evaluation/Conclusion:** By educating staff and holding them accountable for their actions the in-service looks to streamline the specimen registration and reception process to reduce turnaround times. By reducing the time clients have to wait for their results the laboratory will see an increase in client satisfaction. This increase in satisfaction will help Robert Wood Johnson maintain these clients business, attract new clientele, and provide leverage in negotiations.

**Title:** Women's Health Institute Patient Portal Analysis

Name: Karen Deonandan

**Preceptors:** Gloria A. Bachmann, MD, Director of Women's Health Institute

Agency: Rutgers Robert Wood Johnson Medical School, Women's Health Institute

**Purpose:** To analyze RWJMedconnect registration data among the Department of Obstetrics and Gynecology, and propose interventions to increase patient registration.

**Significance:** In 2014, the Centers for Medicare & Medicaid Services required health care providers to install and utilize patient portals to qualify for the Electronic Health Record (EHR) Incentive Program. In compliance with this provision, Rutgers Robert Wood Johnson Medical School implemented RWJMedconnect to allow patients to effectively manage their health records and foster greater communication with their doctors. By identifying the reasons why patients do not sign up for the portal, interventions can be made to encourage additional registration.

**Method/Approach:** During phase one of this project, the patient portal was created, surveys were made, and interns were trained on how to register patients for the portal. During phase two of this project, interns spoke to patients waiting for their appointment on the benefits and importance of utilizing RWJMedconnect; the patient then either registered or declined. Regardless of their decision to register or not to register, all patients were asked to fill out a survey at the end of the encounter During phase three of this project, registration and survey data from a two-month period were coded in Microsoft Excel. The following information was evaluated: 1) Patients' likelihood to register 2) Patients' likelihood to utilize the portal and 3) Reasons patients chose not register.

**Outcomes/Results:** Over a 2 month period, 234 of 509 patients were registered for RWJMedconnect which indicates a 46% success rate. Evidence showed that there was a strong negative correlation (R=-0.94) between the patient's age and their likelihood to register for the patient portal (n=509). 73% of patients who registered for the patient portal completed a survey (n=170), where 86% of patients indicated that they were likely or very likely to utilize it. Of the patients who declined registration, 63% completed a survey indicating why they chose not to (n=170). Major responses included that 19% were uncomfortable with English, 13% preferred to communicate with the doctor or by other methods, and 11% were worried about internet security. (Note: These percentages are not even close to 100%)

**Evaluation/Conclusion:** In order to have more patients access RWJMedconnect, the following interventions should be considered. If the patient portal were made available in Spanish and other languages, it would better serve patients who are not fluent in English. To ensure more effective patient-intern interaction, training should include role playing exercises. More data should be collected with the surveys modified for more comprehensive responses. Lastly the doctors and healthcare staff should strongly promote RWJMedconnect among patients for additional support.

**Title:** Medication Assistance Program Chart

Name: Sweta Devarajan

**Preceptors:** Supervisor: Carlos Cordero, Program Director of Social Services

**Agency:** Eric B. Chandler Health Center

**Purpose:** To create an easy-to-follow guide for uninsured or underinsured patients and their physicians detailing eligibility for and access to financial assistance for commonly requested medications.

**Significance:** Medical diagnosis and intervention is often ineffective when patients cannot access the medications they are prescribed. Of the 14, 685 registered patients at Eric B. Chandler, 14, 396 are uninsured or on Medicaid or Medicare and 11, 945 are at or below the Federal Poverty Guideline. Undocumented immigrants often face the most significant barriers to healthcare, including low socioeconomic status, difficulty negotiating time off of work, lack of transportation, and language barriers. The inability to provide the social security numbers or tax forms needed to apply for certain medication assistance programs greatly complicates the issue of healthcare and medication access. Undocumented, uninsured, and underinsured patients rely heavily on safety-net health care providers, including federally qualified community health centers such as Eric B. Chandler.

**Method/Approach:** The PAPRxTracker medical software was utilized to identify the center's most commonly ordered medications over the last few years. Subsequent consultations with Carlos Cordero, the Program Director of Social Services, allowed for the addition of specific medications that were not covered to this list. The medications were then separated by insurance company; information on the eligibility requirements and steps to access for each medication was researched and compiled. The research was reviewed by social services and some of the clinical staff at the center to add details and tips that were not available on insurance websites.

**Outcomes/Results:** The research collected concerning commonly ordered medications and their corresponding access programs was consolidated into a color-coded spreadsheet that organized eligibility requirements in terms of residency status, insurance status, and income level. It also included information on how to send in the application and request refills. This spreadsheet is intended to help physicians easily identify prescriptions their patients can afford and assist patients in the medication access process. Providing a simplified action plan also aids a mainly Spanish-speaking patient population navigate an otherwise complex process.

**Evaluation/Conclusion:** The medication access program spreadsheet has been reviewed by social services and some of the clinical staff at the center; they provided qualitative feedback through comments such as "this is easier to understand" that indicate an improvement over their previous system of determining eligibility. Further evaluations and subsequent updates will take place pending widespread usage of the spreadsheet in clinical service.

Resources: http://www.cshp.rutgers.edu/downloads/4300.pdf

**Title:** We're not Buying it 2.0 program Assessment caps please

Name: Carolina Dos Santos

**Preceptors:** Executive Director, Ezra Helfand and Deputy Director, Helen Varvi

**Agency:** Wellspring Center for Prevention

**Purpose:** To educate 7th graders in Middlesex County schools on the use of alcohol, marijuana, and prescription and over-the-counter drugs, as well as bullying.

**Significance:** Drug abuse is still a major problem for children and adolescents. According to research done by NIDA an estimated 19.9 million Americans aged 12 or older were current users of an illicit drug. This estimate represents 8.0 percent of the population. Data from the National Pride Student Survey done by Wellspring Center for Prevention for the 2012-2017 school years show a trend of increased drug use as students get older. This increase in drug use is seen between 7th and 8th grade. This evidence indicates the need to have programs to educate 7th graders since we see increase substance use when they move into 8th grade. The goal is that through proper education it will lead to a decrease in substance use when students get older instead of an increase.

**Method/Approach:** A 6-session program called We're Not Buying It 2.0 (WNBI) was administered by prevention specialist. In the program the prevention specialist provided information that was experiential as well as factual on substances to students while dispelling any myths and addressing misinformation. Pre and post tests were administered by prevention specialist and completed by 7th graders before having the WNBI program in their class and then again after the program. The pre/post tests consisted of true or false questions relating to marijuana effects, marijuana laws, alcohol effects, alcohol laws, and impacts of other substances on the body. Prevention specialist provided education on the topics relating to the questions asked on the pre/post test.

**Outcomes/Results:** Posttest results show that there has been an overall increase in student knowledge on substance use and abuse. The highest increase in knowledge we have seen is a 54.4% increase with knowledge on substance and bullying laws going from 37.5% in the pretest to 92% in the posttest.

**Evaluation/Conclusion:** Through evaluation and comparison of pretest and posttest results, overall the program is reaching it's goal of increasing knowledge about substance use and abuse among 7th graders in the county. Future school surveys will determine if there was an impact on actual behavior.

**Title:** Apparent Cause Analysis Performance Improvements

Name: Meghan Edson

**Preceptors:** Margaret Evans, Director of Patient Care Services

**Agency:** Children's Specialized Hospital

**Purpose:** To implement a staff-training program on Apparent Cause Analyses and the performance improvements made within the organization to prevent harm.

**Significance:** As identified by Children's Specialized Hospital, the purpose of their Patient Safety Program is to create an organizational structure that values safety, continuous performance improvement, and the reporting of patient safety events. As each event goes through the event reporting system, events are then analyzed and identified for an Apparent Cause Analysis (ACA). An Apparent Cause Analysis is a straightforward analytical approach used to identify obvious causes based on the facts pertaining to the incident/finding. As part of the Patient Care Services Department, it is one's responsibility to evaluate each event and ACA in order to create performance improvements to avert future occurrences. The staff-training program on Apparent Cause Analysis and the performance improvements made in the past for each ACA will produce significant improvements on overall patient and employee safety.

**Method/Approach:** Literature reviews and *Beyond Root Cause Analysis: Building an Effective Program* by Kenneth R. Rhode were used in creating Children's Specialized Hospital ACA Program. The performance improvement data was collected from the completed Apparent Cause Analyses beginning in September 2015 to July 2016. In this time period 76 ACA's were completed. The completed ACA's were separated into 10 different event types. Based on the event types, Meditech/EMR issues, Total Parenteral Nutrition (TPN), and Good Catches were further analyzed. To understand each ACA, the ACA's were broken down into 4 cause codes: behavior, process, equipment, and resource management. Each cause code demonstrates how the breakdown occurred.

**Outcomes/Results:** Of the 76 ACA's completed, the event types were further analyzed: 54 = Med/Fluid Errors (71%), 4 = Safety/Security (5%), 4 = Airway Mgmt. (5%), 6 = Care/Service Coord (8%), 3 = Nutrition (4%), 1 = Dx Test (2%), 1 = Complaint (2%), 1 = Environment (1%), 1 = Equipment (1%), and 1 = Incorrect Tx (1%). Based on the 10 event types, 19 = Meditech/EMR issues (25%), 6 = TPN (8%), and 9 = Good Catches (12%). According to the cause codes, 49 = process codes (64%), 21 = behavior codes (28%), 4 = equipment codes (5%), and 2 = resource management codes (3%).

**Evaluation/Conclusion:** Based on these findings, Children's Specialized Hospital will have more of an understanding on the safety of event reporting and Apparent Cause Analyses. The statistics demonstrate where performance improvements are necessary according to the event type and the cause of each ACA. According to the data, the most common type of error reported for an ACA at Children's Specialized Hospital are Med/Fluid Errors (71%) and the most common breakdown cause is coded as a process improvement (64%).

Title: NJDOH HIV Counseling, Testing, and Referral Grant at Eric B. Chandler Health Center

Name: Jocelyn Elias

**Preceptors:** Direct and Project Supervisor: Cindy Leon, Public Health Representative

**Agency:** Eric B. Chandler Health Center

**Purpose:** To recruit Latinos in the New Brunswick community to get tested for HIV by increase awareness of HIV testing methods among high risk populations.

**Significance:** According to the CDC, about 7 in 10 new HIV diagnoses among Latinos occur in gay and bisexual men. HIV/AIDS continues to be a health threat among the Latino community. Populations considered at high risk of contracting HIV are men who have sex with men, bisexual, and transgender individuals. Educating the public on preventive measures that reduce the risk of contracting HIV will encourage members in the community to know their HIV status.

**Method/Approach:** The Infectious Disease Department at Eric B. Chandler Health Center was awarded the, "HIV Counseling, Testing, and Referral grant"-from the NJDOH - Division of HIV, STD, and TB Services. The grant began 1/1/17 and the purpose of the grant is to test at least 500 Latinos in the New Brunswick community for HIV in the year. The best approach to recruit Latinos to get tested was through an educational video on HIV/AIDS that was presented to patients after triage, while they waited to be seen by their medical providers. The pilot started on 3/21/17 with two testing options available to interested patients based on their insurance status. Documentation for each person spoken to was categorized by name, date of birth, insurance status because this would determine the method in which they would get tested, if they had previously been tested, type of risk, and if they watched the video. The video was a quick version of the counseling on HIV required when getting tested.

Outcomes/Results: Within the first three months of the grant being in place, 93 patients have agreed to get tested (30 females, 62 males, and 1 transgender). The 93 patients are a combination of different races (non specified-1; Asian Non-Hispanic-7; Black non-Hispanic-26; Other Hispanic-6; White Hispanic-30; White non-Hispanic-23). Each patient was asked the type of risk they had; 56-Heterosexual; 25-MSM; 7- sex with HIV+; 3-bisexual; 1-IDU sharing needles; and 1-no risk. Based on this information, heterosexual sex was the population with the highest risk and MSM was second within those who got tested for HIV in the first three months of the grant being implemented.

**Evaluation/Conclusion:** The success of the pilot is being measured by finding the appropriate way to start a conversation on such a delicate topic and determining what HIV testing method is best for each individual patient based on their insurance status. The video is available in English and Spanish to benefit the recruitment of Latinos for the grant. This outreach method could be used to increase awareness of what HIV is, testing methods and can expand to other facilities that provide HIV testing to encourage HIV testing to be part of a routine check-up.

Title: Echo Farms Development, Wilmington, North Carolina

Name: Joseph Epstein

**Preceptors:** Bill Stapleton, Vice President

**Agency:** Matrix Development Group, Location

**Purpose:** To analyze the best use of land for this North Carolina Golf Course development. That fits with the existing type of the housing that is already developed around the golf course. Significance: Echo Farms Golf Course, in Wilmington, North Carolina, hasn't been a prolific course over the past few years. Matrix, the owner, is looking into a plan that will turn the declining golf course into a housing community. The plan consists of 209 Single Family units, 179 Townhouses and 216 multifamily apartments. Turning golf courses into homes isn't so easy because of environmental issues (caused by the high maintenance of the greens of the course) and lack of lot space from existing neighbors that purchased a house on a golf course. So Matrix, the owner and developer, has to be careful to work in the guidelines of the local township, while trying to please the local existing home owners.

Method/Approach: These plans work with local official's guidelines and laws, while hearing what the existing home owners wish for and what's best for the owner, Matrix. These plans have been presented to Matrix, the existing home owners and Wilmington local officials. 1. Not so much open space. The local home owners would like to see a park or walking/bike paths around the neighborhood if existing golf course is going to be developed. High buffer zones in between existing and new homes. Lower number of SF units from 209 to 171;179 TH to 125 TH; 216 MF to 240 MF. Change to open more space, allow more room for parks and trails and parking. 2. Diminish multifamily units (because existing home owners don't want to see apartments) and add more open space (More houses equal more crowded) Plan two is to have only 192 SF units and 240 TH developed. Mix of Plan 1 open space, with no MF apartments, to not upset the local homeowners. 3. There is an open lot for sale that, if used properly will connect the existing homes community with the new homes community. By doing this the two housing communities will feel more connected and less congested even though they are adding all of those new developments, roads and people. Matrix is in talks about purchasing the property and the plan is to connect the roads through this lot.

Outcomes/Results: The local existing home owners have presented Matrix back with a site plan that they hope Matrix will weigh in when they are making their final decision with the golf course. The plan consists of roughly around 160 SF units and 125 TH. They went with a plan with a lot of open space and parks. Local home owners have publicly stated interest to push the township to purchase the golf course as is, to keep the value of the homes surrounding it while keeping the golf course open to the public and not overcrowding the area. Not so feasible for Matrix but they are in the process of developing a fourth plan that takes insight from all of the previous plans that have been offered. Even the existing home owners.

**Evaluation/Conclusion:** From this whole process, Matrix, being the owner and developer, have been really trying hard to please the local existing home owners. The plan that they had first submitted, perfectly follows within the zoning for the lots and local authorities' wishes. But, they plan to come up with a third plan to try to keep the open space and develop some walking/bike paths along the existing and new ponds they plan to construct. Once a site plan is finalized and approved, Matrix will begin development.

**Title:** Women's Program Pamphlets

Name: Hillary Esposito

**Preceptors:** Joan Dawson, MSW, LSW, Primary Therapist

**Agency:** Princeton House Behavioral Health, Women's Program

**Purpose:** To provide five different educational pamphlets highlighting the types of women's behavioral health to ensure easier to transition into the therapy. There are tracks for emotional eating, emotion regulation, trauma, trauma and addiction, as well as Dialectical Behavioral Therapy.

**Significance:** When women first join the program, many of them are traumatized and feel very overwhelmed. A requirement for referral to this location is a rated AXIS I (by Diagnostic and Statistical Manual of Mental Disorders) of PTSD and/or severe depression. These patients tend to have high suicidal tendencies, and high self-harm tendencies. Each woman goes through their past history with the psychiatrist is taken to get a full evaluation on which track would be best for them, which can be very dysregulating. By the time they have their orientation for the next day, many of the women feel dissociative and unwilling to listen to the rules of the program, as they sift through a large packet with a lot of information on the program. Many times the women feel very confused and dissociative the next day because they didn't read through the packet before their first day, and adjustment into the program can be difficult.

**Method/Approach:** The pamphlets are meant to create a brief overview for women looking to join the Women's Behavioral Health, and women who are just joining the program. Generally at the end of the evaluation day they go through a quick orientation and get sent home with a large packet, while the next day is their first day. The pamphlet could provide them with a brief description of their specific track, and they could carry it with them their first day to get used to some of the basic concepts of Women's Behavioral Health. These pamphlets also provide key information for someone just browsing through different mental health programs.

**Outcomes/Results:** Through a survey distributed among a sample of 12 women who have never been to women's program before, found that 10 out of 12 (83%) of the sample, have not heard of women's program, and 12 out of 12 (100%) found the pamphlets provided, were easily followed when compared to the packets that women from the women's program receive.

**Evaluation/Conclusion:** 12 out of 12 (100%) of the sample found that each of the pamphlets were readable, and provided key information compared to the large packet's that are provided through the women's program currently. Future surveys on both therapists from women's program as well as patients from the women's program will provide insight on (a) whether the pamphlets are making a difference within the organization, and (b) whether changes may need to be made to the design.

**Title:** Epidemiology Disease Fact Sheets

Name: Maryanne Fakeh

**Preceptors:** Sherie Wolpert, Middlesex County Epidemiologist

**Agency:** The Middlesex County Office of Health Services

**Purpose:** To standardize, create and increase the number of disease fact sheets available at the Middlesex County Office of Health Services and on the county website.

**Significance:** While the Centers for Disease Control (CDC) and New Jersey Department of Health (NJDOH) provide disease information on their websites, the Middlesex County website currently does not provide a local, reliable resource for diseases for the 837,000 county residents. By creating standard formatted disease fact sheets, county residents, school nurses, and physicians' offices will have access to efficient and easy-to-read resources pertaining to a number of relevant diseases. The provision of credible disease fact sheets on the county website will provide a resource that previously never existed to county residents, nurses, and physicians' offices and will increase trust between the residents and local government.

**Method/Approach:** A template with the county logo was provided for the creation of the fact sheets. Upto-date disease information was retrieved through the navigation and research of the CDC and NJDOH websites. The sections on all the fact sheets included information about the disease, transmission, symptoms, diagnosis, treatment, and prevention. In some cases, diseases required further information regarding at-risk populations, travel restrictions, and vaccinations. Links to the resources used were provided at the bottom of each fact sheet as a source for additional information.

**Outcomes/Results:** Middlesex County residents, school nurses, and physicians' offices will have access to eighty-five (85) newly created disease fact sheets through the county website. Fifty-four (54) of the eighty-five (85) fact sheets pertain to communicable diseases that the NJDOH identifies as diseases that must be reported immediately or within 24 hours of confirmed or suspect diagnosis.

**Evaluation/Conclusion:** The creation of standardized disease fact sheets provides Middlesex County residents, school nurses, and physicians' offices with easily accessible resources in one location. Residents, school nurses, and physicians' offices accessing the fact sheets also have the opportunity to translate disease information to the language of their choice based on their web browser capability. While the disease fact sheets have been created, they have yet to go through an approval process within the epidemiology department before the final posting on the county website. This process is estimated to take approximately eight to ten weeks before the fact sheets can be posted on the county website.

 $\frac{https://docs.google.com/document/d/1Xhh-F-x4iNEUU5lSqtYDYVlIRkeRomQV58-byB11Rio/edit?usp=sharing}{}$ 

**Title:** Septic Maintenance Database Update 2017

**Name:** Katherine Fay

**Preceptors:** Direct Supervisor: Gary Rojek, GIS Specialist I

Project Supervisor: Sharon Martens, Environmental Health Coordinator

**Agency:** Middlesex County Environmental Health Division

**Purpose:** To update the Septic Maintenance Database in order to be in compliance with the Water Quality Management Rule for Middlesex County and the Department of Environmental Protection.

**Significance:** The Department of Environmental Protection (DEP) in 2009 required Middlesex County Environmental Health Division (MCEHD) to create a digital septic maintenance database. This allowed MCEHD to keep basic information for maintaining septic system records and the ability to issue a three year preventative maintenance notice for septic tank pump outs efficiently. The DEP has recently reviewed the database and proposed some changes be made which included adding additional columns of information. By updating and adding more detailed information, data entry and maintenance notifications will be more streamlined.

Method/Approach: There are 18 towns within Middlesex County, each of which have their own spreadsheet in the database. A systematic approach was taken when working on each specific change that needed to be made. The DEP requested that 5 new columns be added with notations in order to be in compliance with Water Quality Management Rule for Middlesex County. It was also decided that the "House #" and "Street" columns should be combined to form a complete "Septic Address" column and that any secondary addresses found under "Street" should be made into a "Mailing Address" column. Next, in the "Block" and "Lot" columns there were numbers in parenthesis which were the original block and lots. Those were to be separated out into "Prior Block" and Prior Lot" since this information was needed to look up any files that correspond to the entry. In addition to these changes, a review was done of each town to make sure the septic addresses and mailing addresses were correct and complete by utilizing the NJ Tax Assessment Record Search. When entries could not be found on the tax record search, a list was put together for each town and sent to the respective tax assessor's office. Lastly, a uniform format was applied throughout the entire database.

**Outcomes/Results:** Since the database was created in 2009, it has expanded from 8 columns and 2,599 rows to 15 columns and 2,653 rows. This shows a 48% increase in the database size approximately. By applying a uniform table format within the excel sheet, there is the ability to sort the data in a variety of ways.

**Evaluation/Conclusion:** At the start of the septic address review the database was 91.6% complete compared to 95.5% after. In the future, a GIS specialist will GPS septic system locations to continue to improve on the databases accuracy. Approval from the DEP is currently pending.

**Title:** The Effect of Implementing Split-Flow Triage in Emergency Department

Name: Samina Fazli

Preceptors: Direct Supervisor: James Schneider, Project Manager

**Agency:** JFK Medical Center

**Purpose:** To analyze Emergency Room data in order to see the benefit of implementing split-flow triage for patients in the Emergency Department at JFK.

**Significance:** JFK Medical Center has one of the busiest, and largest Emergency Departments (ED) in the county. The increasing volume of patients could potentially lead to decreased patient satisfaction, and longer wait-times to get treated. In order to reduce wait-times and overall length of stay for patients despite increasing volume, a new procedure was created and implemented in January 2015. This new procedure included placing a triage nurse at the ED entrance to immediately evaluate incoming patients, and having separate procedures based on their 5-level Emergency Severity Index as determined by the triage nurse. Two years after the initial implementation of this procedure, it is necessary to conduct analysis to see if there is a benefit to using it, and if further measures need to be enacted in the Emergency Department.

**Method/Approach:** The original January 2015 process flow was critiqued, and compared to what was actually practiced by 2017. It was then corrected to reflect the current procedure. Electronic Medical Records from the last 3 years were accessed and analyzed in order to assess patient length of stay. This data was accessed in a SQL database, and exported to a spreadsheet in order to analyze trends. Metrics including total ED volume, length of stay, discharged patient volume, door-to-triage, door-to-doctor, and door-to-disposition were analyzed on a quarterly basis from January 2014 to December 2016. The same metrics were also pulled on a yearly basis. The data pre-Split-Flow was compared to what was recorded after implementation, in order to see evidence of a benefit.

**Outcomes/Results:** A trend of a 3% yearly increase in total Emergency Department volume was observed, with a similar 3% increase in the amount of patients discharged per year. After implementation of Split-Flow Triage, a 6% decrease in the median length of stay was observed for the year of 2016. An 8% decrease in the length-of-stay for discharged patients was also observed, with 2016 recording a 168 minute LOS, over the previous year's 184 minutes. Ever since implementation of Split-Flow Triage, door-to-triage time has constantly stayed at 3 minutes, a 75% decrease from the 12-minute average time recorded in 2014 and 2015.

**Evaluation/Conclusion:** A marked benefit was seen in implementing Split-Flow Triage. An automated report will be created in SQL in order to make monitoring metrics in the Emergency Department easier for hospital administrators.

**Title:** Maternal Bonding in the Animal Kingdom: Can Humans Benefit?

Name: Loyala Fernandez

**Preceptors:** Direct Supervisor: Dr. Sona Jasani, MD, OB/GYN

Project Supervisor: Dr. Gloria Bachmann, MD, Director of Women's Health Institute

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

**Purpose:** To enhance the knowledge of bonding behaviors and physiologic bonding mechanisms in animals and humans, and ultimately propose methods to improve the human delivery and bonding experience.

**Significance:** Maternal Bonding is the formation of a parent's bond to his or her children that encompasses all mental, emotional, and behavioral aspects. Maternal bonds ensure protection, care, and soothing during times of need. Maternal bonding includes proximity seeking, touch, and contact. Specifically in humans, gaze at the infant, vocalizations, positive expression, and adaptation cues expressed by the infant are all aspects of maternal bonding. In mammals, the maintenance of parent-infant proximity is key to survival.

**Method/Approach:** In order to encourage maternal neonatal bonding behavior in humans postpartum through infancy, previous research on maternal bonding in humans and animals was analyzed. Furthermore, animal maternal bonding behavior was observed through videos obtained from a farm owned by Ms. Barbara Perry, as well as national geographic videos. The previous research and new observations were analyzed and compared through a table that assessed maternal bonding, duration, and Bowlby's attachment style.

**Results:** After the analysis of previous maternal bonding research, as well the observations derived from maternal bonding videos, the results were recorded. Maternal bonding in cattle consists of the cows spending the few hours after birth licking the calf, which is vital in stimulating calf activity. In a majority of small brained animals, maternal bonding requires the steps of: individual recognition of olfactory cues, and gender specific hormonal priming for behavioral output. In contrast, elephant mothers bond with their children through vibrations. Additionally, The Women's Health Institute OB/GYN department in collaboration with Barbara Perry have observed that sheep mothers makes a guttural sound up to 72 hours after delivery, which correlates with a calming response. Furthermore, human mothers that practiced skinto-skin contact when their infants were held in the hospital for a longer period of time experienced more competency than mothers involved in traditional care.

**Conclusion:** The physical proximity of the mother is essential to any infant or infant animal. Thus, mothers should constantly talk to their infants postpartum, in order ensure their proximity to their infants. Touch is also a significant factor in ensuring optimal maternal bonding. Mothers should be encouraged to maintain constant contact with their infants immediately after delivery. Future research should investigate to what extent maternal bonding affects a child's cognitive, social and emotional well-being.

**Title:** Ambulatory Patient Experience Program

Name: Arlenis Ferreiras

**Preceptors:** Marlene Thompson, Director of Post Anesthesia Care Unit (PACU)

**Agency:** Robert Wood Johnson University Hospital

**Purpose:** To improve Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) scores in the Ambulatory Care Unit by educating staff to respond to patient's needs and concerns.

**Significance:** Hospitals have always been in the business of providing patient care. The move from feefor-service to pay-for-performance means that reimbursements are tied to the quality of care that's delivered. Hospitals that provide high-quality of care will receive reimbursement incentives while those who provide low-quality of care will be penalized. Quality of care is measured through two-metric patient outcomes which attributes to 70% of reimbursement while patient satisfaction attributes to 30%. With patient satisfaction scores now having a direct impact, the measure and management of patient satisfaction has become a top priority in health care systems across the country.

**Method/Approach:** Through the HCAHPS survey, patients are asked to answer 32 questions which rates their stay. Out of the 32 questions, staff looks at the top 4 questions that the patients are concerned about. Those four questions are information day of surgery, instructions of re-home care, likelihood of recommending center, and response to concerns/complaints. Based on the HCAHPS scores, hospitals are at a risk of losing 2% of their Medicare payments in the fiscal year of 2017. Therefore, Robert Wood Johnson's Ambulatory Services took the following tactical initiatives to increase patient satisfaction scores: purposeful rounding, ambulatory task force launch, and staff training/role play.

**Outcomes/Results:** The scores for the top 4 questions during the first quarter (January-March) are as follows: information day of surgery was 93.0, instructions re-home care was 92.9, likelihood of recommending center was 91.9, and response to concerns/complaints was 91.0. As seen in the results, the response to concerns/complaints question is not meeting the expected target and has the lowest score from the top 4 questions. Furthermore, the overall rate of patient satisfaction for the first quarter is 91.7 and exceeded the expected target of 90.5 by 1.2.

**Evaluation/Conclusion:** Altogether, an increase in HCAHPS scores was seen for the overall rate of patient satisfaction, a decrease for responsiveness to patient concerns/complaints occurred. The limitations of these scores is that although we will see scores for the second quarter, those will not be finalized till the quarter closes at the end of June. However, it is important that Ambulatory Task Force Committee continues to work on more tactical initiatives to make sure scores continue to improve. Additionally, the Committee has decided to implement a waiting room card which will provide patients and family members with information on waiting time of patient's procedure on the day of surgery.

**Title:** Continuity of Care Assessment through a Patient Experience Survey

Name: Sofia Fils

Preceptors: Project Supervisor: Steven Levin M.D, Medical Director; Direct Supervisor: Rose Jean-

Baptiste MPH, Program Manager of Quality Assurance and Improvement

**Agency:** Eric B. Chandler Health Center, RWJ Medical School

**Purpose:** To determine whether patients can identify their primary care provider by name in the context of the patient-centered model of care within the Eric B. Chandler Health Center.

**Significance:** Lately, health care practices have shifted towards a patient-centered model of care, which aims to actively engage both patients and clinicians throughout the care management process, while considering patients' social, cultural, and economic determinants of health. Hence, patient experience surveys help evaluate clinical care performance and quality from the patient's perspective. Research indicates that continuity of care is associated with higher levels of treatment compliance, better health outcomes, and lower healthcare utilization. Although continuity of care at the Health Center has been established as the norm, a previous Patient Experience Survey indicated otherwise. Of 343 patients surveyed in January of 2017, only 158 (46.3%) were able to identify their Primary Care Provider's (PCP) name. Based on the responses to this question, the need for a follow-up study was highlighted, to determine which cohort of patients and their respective medical department is in need of further continuity of care improvement efforts.

**Method/Approach:** A quantitative survey was created, using Google Forms, in both English and Spanish. For a three-week period, the survey was administered to patients using iPads, following a doctor's visit. This evaluation examined the strength of continuity of care and asked patients whether they could identify their medical department and PCP's name, as well as demographic questions.

**Outcomes/Results:** 200 patients were surveyed, 170 (85%) reported receiving care at the clinic, 168 (98%) identified the medical department and 74 (44%) named their PCP. Pediatrics patients named their PCP significantly more than all other medical departments combined (63% vs 39%). Overall, 127 (75%) completed the survey in Spanish, while 43 (25%) did it in English.

**Evaluation/Conclusion:** Significantly less OB/GYN patients named their PCP compared to the other medical departments (OB/GYN 6 (12.8%), Peds 45 (63.4%), FM/IM 17 (39.5%), ID 5 (71.4%)). Thus, implementing a quality improvement effort and a bi-annual PCP survey, especially within OB/GYN, will serve as effective strategies to ensure continuity of care.

**Title:** Breastfeeding rates and barriers to breastfeeding in mothers of 1-6 month old infants

Name: Martha S. Flores

Preceptors: Direct Supervisor: Dr. Usha Ramachandran, Assistant Professor

**Agency:** Eric B. Chandler Health Center

**Purpose:** To assess infant feeding choices, rates of breastfeeding, and barriers to breastfeeding for mothers of infants who are 1 to 6 months old at Eric B. Chandler Health Center (Chandler).

**Significance:** Breastfeeding has distinct advantages for the health and future development of infants as well as compelling benefits for the mother. The World Health Organization and the American Academy of Pediatrics recommend that mothers exclusively breastfeed their infants for at least 6 months. Doing so has been shown to protect infants against developing infections. For mothers, some identified benefits include lower risk in developing breast and ovarian cancer and higher post-partum weight-loss. Despite these well-known benefits, in the US, less than a quarter of mothers have reported that they continue to exclusively breastfeed at infant's 6-month age mark. New Jersey stands behind the national average with a rate of 22.3% for exclusive breastfeeding. A study, conducted in 2006, by Petrova et. al. found that only 10.5% of mothers at Chandler were exclusively breastfeeding at 3 months. This present investigation aims to assess the current initiation and continuation rates of breastfeeding for mothers at Chandler, as well as the common barriers to breastfeeding that exist among this particular population.

**Method/Approach:** The barriers and rates of breastfeeding were assessed using a cross-sectional research method. Mothers of infants between the ages of 1-6 months, who are patients at Chandler, were given a 37-question paper survey that gave us insight about the rates of breastfeeding, the common infant feeding choices for mothers, problems mothers faced with breastfeeding and the reasons they stopped breastfeeding. These questionnaires were provided in Spanish or English. Fifty-one surveys were collected and the data from the surveys were analyzed using STATA, a statistical software package.

**Outcomes/Results:** From the 51 participants surveyed, 20% of mothers were exclusively breastfeeding, 20% were feeding their infants only with formula, and 60% were feeding their infants with both methods. There was no significant correlation between mothers meeting with the nutritionist at Chandler and breastfeeding. However, mothers whose infants were fed formula at the hospital were 85% less likely to breastfeed. Lastly, the most common reasons for discontinuation of breastfeeding were that mothers felt they did not produce enough milk and that their baby was not satisfied with their breast milk, with 28 and 22 mothers, respectively, reporting that they stopped breastfeeding for these particular reasons.

**Evaluation/Conclusion:** Given the outcomes of this study, we now have a better understanding of the rates of breastfeeding among mothers at Chandler. Additionally, because feeding infants with formula at the hospital was found to be a common barrier to breastfeeding, health professionals at hospitals should be educated about the importance of encouraging mothers to breastfeed instead of relying on formula. Moreover, since discontinuation of breastfeeding was largely due to mothers' perception of not producing enough milk and feeling that their infant was not satisfied, Chandler could incorporate these findings into the development of a breastfeeding promotion project aimed to educate mothers. Ultimately, the completion of this present study was a necessary initial step in order to create a program that could address the issues that are contributing to the low rates of breastfeeding among mothers at Chandler.

Title: Preliminary Steps To Create A Pilot Program For Young Pregnant People

Name: Caroline Franco

**Preceptors:** Stephanie Franklin, Founder/Executive Director

**Agency:** Masakhane Center

**Purpose:** To analyze the preliminary steps to create a pilot program to focus on sex and sexuality education for young pregnant and/or parenting people between the age range of middle school to mid 20s.

**Significance:** The CDC reported that in 2014 there was a 9% drop in birth rates, with 250,000 babies born to women aged 15–19 years. Birth rates fell 11% for women aged 15–17 years, and 7% for women aged 18–19 years. The CDC reported that the reasons for the declines are uncertain but they have noticed that teens seem to be less sexually active. For those who are sexually active, they seem to be using more contraceptives like birth control than in previous years. This drop could be caused by the increase of prevention being promoted through the different sex education programs.

**Method/Approach:** In order to begin developing a pilot program; first a needs assessment on the target group was conducted, young pregnant and/or parenting youth, within the city of Newark, New Jersey. This was accomplished by creating a list of different organizations and groups that could be contacted to distribute the anonymous survey questions. The survey consisted of a variety of questions that range from their age and ethnicity to the type of sexual education they have received and how effective they felt it was. After the survey is collected a list of topics can be developed which would be talked about within the four to six week program and a workshop would be created for each one of those topics.

**Outcomes/Results:** The official results are still pending due to some time constraint setbacks. A total of six different organizations were contacted, some of whom have yet to respond. The six organizations we contacted were each very different in order to make sure all potential participants were being reached. Some examples of these organizations are Planned Parenthood in Newark, First Choice Women's Resource Center, and different public middle and high schools. By reaching out to a variety of organizations and public schools, it ensures that there will be enough people within the target group willing to participate in the pilot program.

**Evaluation/Conclusion:** In order to properly evaluate this project, an analysis using the questionnaires and organizational feedback received to ascertain participant need for a pilot program.

Title: Increasing the number of individuals in Jersey Assistance for Community Caregiving

and the Statewide Respite Program

Name: Hassan Funchess

**Preceptors:** Direct Supervisor: Christina Teel, Community Engagement Coordinator

Project Supervisor: Diana Kennedy, Chief Development Officer

**Agency:** Enable Inc. 13 Roszel Road, Princeton, NJ

**Purpose:** To increase the number of individuals in both the Jersey Assistance for Community Caregiving (JACC) and the Statewide Respite Program for Mercer County.

**Significance:** Mercer County Jersey Assistance for Community Caregiving (JACC) is a state-funded program that provides in home services to seniors at risk of placement in nursing homes. It increases community care options and strengthens a caregiver's ability to fulfill the vital role as primary support provider. Meanwhile, Mercer County Statewide Respite Program provides short-term, intermittent relief to the caregiver to think, organize, rest and do other things. With Mercer County having a higher average median age than the United States, both of these programs offer assistance to the majority of the population found within the county.

**Method/Approach:** New methods of approaching and finding the target population were deployed by basing them off the demographic statistics of Mercer County. By looking at the demographics, it was found that about 16% of people in the county use Spanish as their first language. This led to the creation of an alternative brochure that provided information about JACC and Statewide Respite in spanish, to cater to the elderly and caregivers whose first language was spanish. Demographics also helped to show that the female median age in Mercer County was higher than males, 39.9 to 36.9 respectively. This led the brochures to be placed in more areas where older women would congregate and the pictures on the brochures would reflect them more often.

**Outcomes/Results:** Since the inclusion the new methods, the numbers of individuals in both programs have started to increase. From January to March 24, 2017, a combined total of 4 individuals have been accepted to JACC; filling 15/27 spots with 10 in process. From January to March 24, 2017, a combined total of 6 individuals have been accepted to Statewide Respite; filling 20/38 spots.

**Evaluation/Conclusion:** The strategies of making a spanish brochure and catering specifically to women have shown an increase in the number of individuals being accepted to both JACC and Respite. Each program has seen an increase of admittance by 15% and 16% within three months respectively.

**Title:** Improving the Patient Experience by Minimizing Clinic Wait Times

Name: Nicolette Gadaleta

**Preceptors:** Terron Browne, Clinical Practice Supervisor

**Agency:** Memorial Sloan Kettering Cancer Center

**Purpose:** To analyze how grouping the treatment sign-in process for patients in clinic impacts their wait times, and to gather feedback from the patient population to understand the qualitative impact of the same process.

**Significance:** In 2016, there were 1,658,210 new cancer cases diagnosed and 595,690 cancer deaths in the United States. As a comprehensive cancer center, Memorial Sloan Kettering does not only think about a patient's treatment, but rather their whole experience. While in the clinic, for patients receiving treatment while also having a MD visit, the average scheduled wait time is 1:30. However, often times these treatments are delayed. The American Cancer Society has found that these chemotherapy delays are commonly due to lab delays, as well as physician delays. Understanding the analysis of this patient wait time data would help understand where innovation is needed within the clinic. As for the treatment signin process, it is important to study whether the process itself is causing the delays, or were there other factors that, if addressed, would improve the experience without changing the sign-in process.

**Method/Approach:** Both qualitative and quantitative data were collected for this project. Data has been collected from MSK regarding the average treatment wait times for all patients on the Solid Tumor Gastrointestinal floor. Qualitative data, such as specific patient interactions, as well as quantitative data, has been noted throughout Q1. Comparative analysis of the sign-ins and corresponding wait times for the physician being studied as well as the others in the service were noted.

**Outcomes/Results:** A review of the data collected from Q1 found that the average chemotherapy treatment wait time for all practicing physicians on the Solid Tumor Gastrointestinal floor was an additional 31 minutes past the scheduled treatment time. The average wait time for the studied physician, GAA, was 42 minutes past the scheduled treatment time. However, the service average included the wait times of GAA's patients, therefore raising the average wait times, as his patients experienced the highest overall treatment wait times. It is important to note that these time estimates are developed from the scheduled appointment time rather than the time that the treatment sign-in occurs.

**Evaluation/Conclusion:** The main improvement can be made through potential changes to the scheduling template. In doing so, these changes are aimed at reducing the treatment wait times while also preserving the physician's preference for the treatment sign in process. In short, by restructuring the scheduling template more appropriately by allowing for time to individually sign-in each patient rather than grouping them together, wait times will become more stabilized.

 $\frac{\textbf{Resources:} \ \underline{https://www.cancer.org/treatment/caregivers/what-a-caregiver-does/treatment-timeline.html}{\underline{http://scienceblog.cancerresearchuk.org/2015/11/12/unacceptable-cancer-waiting-times-are-testing-patients-patience/}$ 

https://www.mskcc.org/experience/become-patient

**Title:** Telemedicine for Mental Health

Name: Dhirja Gangopadhyay

**Preceptors:** Direct Supervisor: Philip Echevarria, Policy Analyst

Project Supervisor: Samantha DeAlmeida, Legislative Strategist

**Agency:** New Jersey Hospital Association, Princeton, NJ

**Purpose**: To assess the benefits of the use of technology such as Telemedicine for treatment of mental health conditions in the State of New Jersey.

**Significance**: US Mental Health.gov found that in 2014 that 1 in 5 American adults experienced a mental health episode (1 in 4 in New Jersey);1 in 10 young people experienced a period of major depression, one in 25 Americans lived with a serious mental illness, and suicide became the 10th leading cause of death in the United States. Telemedicine is a new tool that improves the quality, cost and access of mental health and substance abuse care needed by our communities in the face of inflated, geographically limited healthcare and mental health practitioner shortage.

**Method/Approach**: Current benefits and hurdles to the implementation of a Telemedicine program in New Jersey was assessed. Data from NJHA's database, advocacy tools and other sources were analyzed in order to survey the landscape of mental health issues in the state. As advocacy and legislation play a major role in orchestrating change at a population level, interviews with mental health policy experts were conducted to evaluate current practices and procedures for mental health patients and policies.

Outcomes/Results: Software Advice's survey on the benefits of virtual appointments cited by patients are: quality of care (21%), don't have to travel (21%), comfort of home (20%), quick access to care (11%), shorter wait time (10%), easy to use (9%), avoid waiting room (8%) and cost effective (4%). The convenience aspect combined with time and money savings spearheads Telemedicine as a force to be reckoned with in the healthcare delivery system. PricewaterhouseCooper's survey on access to healthcare stated 50% of consumers surveyed were willing to seek health care through the internet or other computer technology instead of face-to-face, non-emergency visits. E-mail consultation was the top choice (76%), followed by telemedicine, question-answer consults and an online forum monitored by a doctor. 37% said they would likely use a worksite clinic and 36% would use a retail health clinic.

**Evaluation/Conclusion**: Over 30 states are already utilizing Telemedicine with New Jersey being the newer states working on enabling and legalizing Telemedicine healthcare services. Senate Bill No. 1954 will authorize healthcare providers in the state to engage in telehealth and telemedicine usage. This legislature mandates that health insurance companies treat telemedicine consultations similar to in-person doctor consultations and provide coverage of the said services, The New Jersey Department of Health made significant strides when it awarded Virtua Health a \$290,000 telehealth grant to assist veterans with their primary and behavioral health needs using this 21<sup>st</sup> century technology starting February 1, 2017.

#### Citation:

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**Title:** Plainfield Health Connections

Name: Kayla Garnett

**Preceptors:** Beryl Sowah, Advanced Practice Nurse and Wilselin Geronimo, Social Worker

**Agency:** JFK Medical Center, Plainfield Health Connections (PHC)

**Purpose:** To connect uninsured and underinsured patients in communities served by JFK Health System with medical and social resources, education, and guidance to improve their overall health and wellness and in the process to reduce excessive emergency department (ED) visits.

**Significance:** In 2008, JFK Health System closed the Muhlenberg Regional Medical Center due to large debts primarily due to inadequate state aid to cover all of the hospital's uninsured and underinsured patients. The hospital had an above-average percentage of its patients who were uninsured, undocumented or on Medicaid. ED services were provided to roughly 35,000 patients per year totaling \$15.4 million in uncompensated care in a fiscal year, and received only \$6.2 million from the state in charity care fund. In response to closing, JFK opened a Satellite Emergency Department to provide limited emergency services and to develop a program similar to The Camden Coalition (TTC). Surveys collected from TTC showed patient intervention was effective in lowering avoidable ED visits. A community outreach based program was developed in June 2014 to connect patients to medical and social resources to reduce excessive ED visits and avoidable costs for the hospital's emergency services.

**Method/Approach:** To qualify for the program patients must be uninsured or underinsured and must have 5 or more emergency room visits to JFK Medical Center within the past calendar year. Patients are screened and monitored through the electronic medical records database. Upon recruitment patients are given an initial assessment to establish medical and social needs from which goals are set in order of priority. Patients are enrolled into the program for a 6-9 month period based on their current conditions. During enrollment patients are connected with health and social service resources based on their goals to improve their overall health and well-being. At the end of their enrollment period, patients are given a progress assessment to measure their improvement as a graduate or non-graduate of the program.

**Outcomes:** Data was collected from patient progress assessments and emergency room visits. There are currently 280 patients enrolled, 142 participants have successfully completed the program and 94 patients are still participating. In 2016, there has been a 48% reduction in ED utilization compared to a 22% increase in non-participants. 68% of participants reported an improvement in their overall health status.

**Evaluation:** Through connecting patients with medical and social resources, wellness programs and health education, current and graduated patients have shown improvement in their daily lifestyle, health status and health literacy. Follow-up phone calls or office visits are conducted with graduated participants to ensure they maintain their healthy lifestyles and success.

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**Title:** 2017 New Jersey Student Health Survey

Name: Carissa Greco

**Preceptors:** Siobhan Foley, Assistant Director Educational Research

**Agency:** Bloustein Center for Survey Research

**Purpose:** To collect and analyze data, track response rates, and perform research regarding active parental consent for the 2017 New Jersey Student Health Survey as it relates to education around priority risk behaviors among youth and adults in the United States.

**Significance:** The New Jersey Student Health Survey (NJSHS) is conducted as a part of the Youth Risk Behavior Surveillance System conducted by the CDC biennially. It strives to monitor priority health risk behaviors including sexual behaviors, alcohol, drug and tobacco use and nutritional habits. This information is used to determine and track prevalence, and provide comparable data (CDC). To obtain weighted data, the CDC sets a 60% combined school and student participation rate threshold. Active parental consent laws in New Jersey and a few other states make the 60% threshold difficult to obtain.

**Method/Approach:** The CDC randomly selected 39 high schools for the NJSHS. The schools were then contacted via mail to participate. Random numbers based on total school and classroom enrollment were used to select classrooms. Due a NJ law that requires written informed consent from a parent or legal guardian to allow a student to participate in surveys that ask about sexual as well as illegal behaviors, consent forms were distributed in person to the students. Approximately two weeks later, the survey administration was conducted only for the students with parental permission. Additionally, monetary incentives were provided to the schools, teachers, and students to promote interest in participating. Both school and student response rates were tracked to send to the CDC and NJDOE biweekly.

**Outcomes/Results:** Data is preliminary since the survey is ongoing. 25 out of the 39 schools have agreed to participate so far, and of these schools, 711 students have completed surveys. This puts the current, preliminary combined response rate at 42.6%. In 2015, New Jersey did not meet the 60% required response rate and was unable to obtain weighted data. New Jersey is one of only 4 states that used strictly active parental consent in 2015, and only 1 of those states was able to obtain weighted data. Of the 25 known states that used either completely or primarily passive consent, only 4 of these states were under 60%.

**Evaluation/Conclusion:** NJSHS data is used to assess the need for school policies and programs to reduce sexual health risks and promote healthy development. The 2017 survey is not completed but the response rate is currently not yet at the required 60% response rate. Since 2017 data is not yet finished, the 2015 and previous data show the added barrier of active parental consent to obtaining the required response rate.

References - <a href="https://docs.google.com/document/d/1181Ciq8tPv52zAZ4wgYyiuD4Wmh\_M7rP-20mi6gkn3Q/edit?usp=sharing">https://docs.google.com/document/d/1181Ciq8tPv52zAZ4wgYyiuD4Wmh\_M7rP-20mi6gkn3Q/edit?usp=sharing</a>

**Title:** Early Detection, Diagnosis, and Treatment of Breast Cancer in East Africa:

A Literature Review

Name: Grace Harper

**Preceptors:** Direct Supervisor: Richard Marlink, MD, Director of the Global Health Institute

Project Supervisor: Elane Gutterman, PhD, Visiting Faculty

**Agency:** Rutgers Global Health Institute, New Brunswick

**Purpose:** To conduct a literature review on breast cancer (BC) detection, diagnosis, and treatment in East Africa, to categorize current publications, and identify recommendations moving forward.

**Significance:** Within most low- and middle-income countries (LMICs) only 20% to 50% of patients with BC are diagnosed in stages I and II, compared to more than 70% of patients in most high-income countries (HICs). In LMICs, the mortality rates for BC are extremely high relative to HICs, likely due to poor prognosis in advanced stages and inadequate availability of care. Within East Africa, BC is the first or second most common type of cancer among women.

**Method/Approach:** Extensive literature reviews were conducted on BC in the East African countries of Ethiopia, Kenya, Rwanda, Tanzania, and Uganda. Reference libraries of scientific articles pertaining to each country were compiled with the use of Endnote referencing software, and Office Word was used to create tables for further categorization. Specific attention was given to the topics of awareness, early detection, and diagnosis of BC.

**Outcomes:** The literature reviews found a total of 95 articles on BC detection, diagnosis, and treatment in the East African countries. The distribution was 14 from Ethiopia, 26 from Kenya, 7 from Rwanda, 26 from Tanzania, and 22 from Uganda. The patterns identified were delayed presentation of BC to medical personnel (and therefore late detection), a late stage BC diagnosis for most patients, low awareness of the symptoms of the disease and benefits of early detection among women, and the existence of many obstacles and delays between detection of possible BC, diagnosis through biopsy, and treatment.

**Evaluation/Conclusion:** Each East African country of interest only has one or two government funded cancer centers able to provide broad cancer care, resulting in multiple referrals and extensive travel. One recommendation from the literature described two strategies to address current barriers: the establishment of regional BC diagnostic and treatment centers, followed by the development of local BC awareness and detection. Raising awareness includes disseminating information on the signs and symptoms of BC, recognition that BC is treatable, and knowledge of where to get medical attention. Early detection of BC includes training medical personnel in clinics and district hospitals to identify which women presenting with breast problems need further evaluation. Until there is better access and utilization of BC diagnosis and treatment, increased awareness and detection are unlikely to improve BC outcomes. With these steps, the possibility of downstaging BC in East Africa can gradually take shape.

Title: Global Health Education From the United States to Ghana

Name: Kristin Harris

**Preceptors:** Direct Supervisor: Gloria A. Bachmann, MD

Project Supervisor: Charletta Ayers, MD, MPH

**Agency:** The Women's Health Institute at the Rutgers Robert Wood Johnson Medical School

**Purpose:** To research and create a global health education network across a multimedia platform in an effort to continue medical education on postpartum hemorrhage from the United States to Ghana.

**Significance:** Continuing medical education (CME) is one of the best ways to keep medical professionals versed in health topics significant today. CME's can be delivered in various formats, such as face to face lessons, activities and across multimedia platforms. According to American Family Physician, postpartum hemorrhage causes excess blood loss of over 500mL. It is the most common cause of maternal mortality in developed nations. This is seen to be even more common in underdeveloped nations. According to PATH, Ghana declared a state of emergency regarding women experiencing postpartum hemorrhage in 2008, and have since recognized it is the leading cause of maternal mortality. Medscape stated this condition accounts for 25% of maternal deaths worldwide and affects about 7-10 women per 100,000 live births every year. The World Health Organization stated that 14 million women suffer from this condition every year. These overwhelming statistics suggests the issue has been recognized as a global problem, developed and underdeveloped countries alike. This makes postpartum hemorrhage an effective topic to analyze a method of continuing medical education as well as highlighting the overarching burden this problem has globally.

**Method/Approach:** Various scientific journals and professional publications were first utilized to research information on educating across a multimedia platform as well as finding the elements of a successful CME tool. Further research was done to investigate postpartum hemorrhage and its burden specifically on the nations United States and Ghana. A PowToon, a cartoon video, was created to continue medical education amongst health professionals in the United States and Ghana. It will contain information regarding the significance of postpartum hemorrhage across all nations alike.

**Outcomes/Results:** Data supports that continuing medical education throughout one's career is extremely beneficial to their overall success in aiding patients. Continuing medical education tools hosted online are found to be one of the best options, as they do not take doctors away from their daily responsibilities, are able to work at their own pace and are typically cost effective.

#### **Evaluation/Conclusion:**

Lifelong learning, in all fields and practices, grows professionals to be better equipped to handle the different practical problems that may arise in the future of their careers. Continuing one's medical education after a traditional degree should be a lifelong process, spanning the many years they practice. To educate on medical topics globally, it is essential for it to be a subject burdening all nations alike. This was achieved through the use of a PowToon and brought awareness to the current pressing topic of postpartum hemorrhage. In the weeks, the PowToon will be sent to medical professionals in the United States and Ghana.

**Title:** Reducing Admission Wait Times in the Pediatric Emergency Department and Pediatric

Intensive Care Unit.

**Name:** Austin Hartman

**Preceptors:** Direct Supervisor: Leslie Oleaga

Project Supervisor: Kelly Carbone

**Agency:** CHOP at Virtua Hospital

**Purpose:** To reduce throughput time in the Pediatric Emergency Department (ED) and Pediatric Department (PEDS) / Pediatric Intensive Care Unit (PICU) by 10 to 15 minutes to meet efficiency goals.

**Significance:** The Institute of Medicine's (IOM'S) six dimensions of quality (effectiveness, safety, patient-centeredness, efficiency, timelines, and equity) are challenged when patients experience long wait times in the emergency room (McHugh, Dyke, McClelland, & Moss, 2011). More importantly there are numerous studies that prove there is a negative correlation between emergency room wait times and patient satisfaction. The more satisfied a patient is the more likely they will recommend Virtua to friends and family members. In addition, better patient satisfaction results in the likelihood of gaining loyal patients. Reducing admission wait times by 10 to 15 minutes will keep Virtua on track with their goals and objectives of 90 minutes or less throughput time.

**Method/Approach:** After a thorough investigation, interviews with staff members, and a series of observances, different obstacles and bottlenecks were identified to admission wait times. After identifying what barriers each unit faced, nine policy changes were created to improve the quality of care. Four policy changes were created for the PEDs/PICU and five were created for the PEDS ED. Following the new policy changes quality improvement teams were organized. Each team consisted of a clinical leader, a technical expertise leader, and a day to day leader. Each team leader plays a specific role in implementing the policy changes within each unit.

Outcomes/Results: Each policy change was tested using Plan - Do - Study - Act (PDSA) Cycles. One of the policy changes we tested was using a patient discharge log on the PEDs floor. The log stated the time the patient was discharged, removed from the computer, and the time the room was cleaned. The time goals we set for the staff were, for discharged patients to be removed from the computer in under 20 minutes and for rooms to be cleaned within an hour of being removed from the computer. Over the course of two weeks we met our goal 58.6% over the duration. It was found that the sooner patients were removed from the computer the sooner rooms were cleaned so that they could be re-filled with new patients. While testing this policy change, the bed request turn around averages were well under Virtua's goals and objectives of 90 minutes.

**Evaluation/Conclusion:** The future of the PEDS Throughput Improvement Project involves continuing to test policy changes through PDSA cycles and to implement them if they are successful. The first policy test change has been proven to be helpful in lowering throughput time.

Title: Analysis of Electronic Cigarette and Traditional Cigarette Brand Websites

Name: Emily Hartranft

**Preceptors:** Project Supervisor: Mia Zimmermann, MPH, Research Coordinator

**Agency:** Rutgers University School of Public Health - Center for Tobacco Studies

**Purpose:** To analyze the websites of select cigarette brands and electronic cigarettes owned by tobacco companies, and decipher differences between design and content of the different products to serve as a source for scholarly research.

**Significance:** The Center for Tobacco Studies conducts surveillance of the tobacco industry advertising via email, direct mail, and magazines in order to further research and educate professionals and the public on tactics used by Big Tobacco to introduce people to smoking. In recent years, tobacco companies and now e-cigarette companies increasingly use electronic media including websites to advertise their products. In the United States, an estimated 36.5 million adults aged 18 and older smoke cigarettes, about 15% of the population (CDC). On the other hand, electronic cigarette usage is on the rise, with the usage among young adults more than doubling between the years of 2013 and 2014 (CDC). Research shows that tobacco advertising prevents people from quitting. Because of this, understanding advertising tactics used on websites is important in the growing use of electronic media.

**Method/Approach:** The first step for conducting the assessment was to analyze current literature published by other teams with similar goals. Based on existing literature, we expanded upon which aspects of brand websites require investigation. Using existing coding guides made for analyzing print ads, email, and direct mail, a website coding guide was developed and presented to the team for feedback. This was then tested and further developed by coding the brand websites of both cigarettes and electronic cigarettes. Upon completion of data collection, a database using the statistical software SPSS was created and the data was entered for statistical analysis.

**Results:** The pilot data of 6 websites, 3 traditional cigarette sites and 3 e-cigarette sites, were analyzed. Results showed many differences between the different products. For example, all cigarette websites require age verification to enter the site while no electronic cigarette sites require this. Common themes on cigarette websites included the outdoors/nature, music & art, and even cowboys, while e-cig sites were more simplistic displaying themes such as using new technology or being original/unique.

**Conclusion:** As electronic media content analysis is new to tobacco surveillance, a website coding guide and database will be useful to the research team for projects in the future that involve any website content analysis. This research scratches the surface of what's coming for tobacco surveillance, and the creation and designing of a coding guide and database will provide tools needed by the Center for Tobacco Studies to further research in this area.

**Title:** A Standard of Excellence: A Formal Training of Customer Services Norms

Name: Katherine Hatzidais

**Preceptors:** Miranda Greco, Human Resources Generalist

**Agency:** Rothman Institute - Philadelphia

**Purpose:** To implement a formal and cohesive set of standards in which each employee practices, regardless of department, creating a professional and pleasurable experience for customers as well as other employees.

**Significance:** As the Rothman Institute continues to grow and expand, a universal standard of customer service must be implemented throughout the company to ensure patients receive the same superior experience, regardless of the location they go to. Previously, there has been no formal training to implement specific methods in order to receive the desired outcomes in terms of customer service, with the exception of the Rothman Institute call center. With a formal training put in place, the company will have the ability to decentralize their headquarters.

**Method/Approach:** To determine the best practices, higher-level individuals such as directors and office managers were asked to compile situations that their departments find themselves in and may cause for a less than satisfactory experience. Together, with the training manager, the group was able to compile learning objectives which was then piloted in smaller Rothman offices. The pilot group consisted of three directors, two office managers, and 15 clinical staff members. Following the training, each employee was asked to complete a survey, which reflected on their experience.

**Outcomes/Results:** The success of the training was recorded through employee surveys, providing direct feedback. This feedback was used to determine not only target groups, locations, and settings, but also how to tailor the training even more to each employee's needs. After a compilation of this data, a revised version of the training was brought to the board's attention providing examples of training previously.

**Evaluation/Conclusion:** The training titled "Service Excellence", will be rolled out company wide to provide the Rothman Institute with the professionalism necessary to compete in the orthopedic industry. As healthgrades is a common and reliable standard when rating physicians and practices, the training staff intends to see high fluctuation within the numbers, relating back to the training.

**Title:** Community Outreach for Ventilator Dependent Dialysis Patients

Name: Madelin Hernandez

**Preceptors:** Joseph McTernan, Senior Director of Community and Clinical Services

**Agency:** Trinitas Regional Medical Center, Elizabeth NJ

**Purpose:** To identify opportunities and strategies for increasing the number of ventilator dependent dialysis patients in the program by establishing partnerships with other healthcare organizations.

**Significance:** Trinitas Regional Medical Center (TRMC) provides dialysis services to ventilator dependent patients including a Specialty Care Transport Unit (SCTU) available to transport critical patients. In New Jersey, the number of healthcare facilities that deliver dialysis services to ventilator dependent patients is relatively low. Transporting these patients is costly, but it creates an opportunity for the SCTU to receive high reimbursement for the number of patients transported weekly to the dialysis department at Trinitas. This reimbursement can be used to cover expenses for the pre-hospital services.

**Method:** The method used was an interview with some staff from the dialysis department. The interview questions consisted of the role of each staff member in providing care to ventilator dependent dialysis patients and their knowledge regarding the demographics of patients at Trinitas. Research was conducted on dialysis treatments, chronic kidney disease (CKD) and on increasing risks that patients diagnosed with CKD have. The results of the interviews were compiled on a document. Market data from the Centers for Medicare & Medicaid Services (CMS) website was reviewed and exported to a spreadsheet. In this process acute care hospitals, dialysis facilities, nursing facilities, and long term acute care hospitals (LTACH) within a 10 to 20 mile radius from TRMC were identified. An elevator speech which emphasized the quality of dialysis services was developed. A S.W.O.T. analysis identified the strengths, weaknesses, opportunities and threats in the project. The collected information was presented to the marketing team to discuss strategies on how to reach the identified organizations.

**Outcomes:** Of 8 LTACH, 18 ventilator dependent facilities, 366 nursing facilities, 66 acute care hospitals, and 164 dialysis centers located in New Jersey (found on the CMS website), 3 LTACH, 4 ventilator dependent facilities, 63 nursing facilities, 22 acute care hospitals, and 40 dialysis centers (within 10 to 20 miles radius) were identified as potential partners.

**Evaluation:** The marketing plan was presented to Donna Dacunha, Renal Manager of 3 North Dialysis, Kimmie Barfield, Renal Social Worker, and Ruby Codjoe, Director of Renal Services. This plan will be implemented on July 2017. The identified organizations will be contacted after the marketing team creates the necessary materials to promote the dialysis services. A limitation in identifying potential partnerships is that a few organizations near the hospital provide on-site dialysis for ventilator dependent patients, decreasing the number of patients that can seek care at TRMC. However, there are facilities that do not provide peritoneal dialysis and this can be another potential market for TRMC.

**Title:** Medical Staff Credentialing Verification Process

Name: Dina Hernandez

**Preceptors:** Direct Supervisor: Melissa Mann - Administrative Director of GME

Direct Supervisor: Brenda Arrietta - Credentialing Manager Project Supervisor: Kattia Martinez - Credentialing Specialist

Agency: Trinitas Regional Medical Center, Elizabeth, NJ

**Purpose:** To monitor competency and improve guidelines for current credentialing procedures to be in compliance with state, federal, and accrediting body regulations.

**Significance:** Trinitas Regional Medical Center (TRMC) is expecting an unannounced survey from their accrediting body The Joint Commission on or about June 2017. The credentialing department is spending a significant amount of time working on internal audits of medical staff credential files to ensure they are current in order to avoid any deficient findings by the surveyor. TRMC must prepare to present any requested information to remain in compliance with The Joint Commission standards. Accreditation from the Joint Commission assists organizations in strengthening its patient safety initiatives, improving quality of care, qualification for Medicare and Medicaid certification without duplicate federal and state surveys, possible reduction of liability insurance costs as a result of its improved risk management efforts, and assists with contract bidding with managed care plans.

**Method/Approach:** System generated reports have been used to audit and review medical staff credentials. If incorrect data was entered, the reports are not accurate. If a discrepancy is found, then the paper file is required to compare data found on the system. The system allows report retrieval with all expirable documents such as State Licenses, DEA, CDS, malpractice insurance, and Board Certifications. A process of evaluation performed to monitor medical staff performance and competency is the Ongoing Professional Practice Evaluation (OPPE). This evaluation includes data collected every 8 months that contains a number of cases performed, outcomes, patient complaints, administrative disciplinary actions and compliance with hospital and medical bylaws.

**Outcomes/Results:** A total of 137 expired credentials were identified using the reports, by April 20th, only two expired credentials remain pending. Additionally, all files have been updated to eliminate discrepancies and there are no practitioners under ongoing professional practice evaluation.

**Evaluation/Conclusion:** The reporting tools were helpful in monitoring the percentage of files that are compliant. This allowed the credentialing staff to focus on incomplete files, expired credentials, or soon to be expired documents. Therefore, this method will continue to be used in the future to corroborate all credentials are up to date. This way, TRMC will improve quality of care and avoid fines, lawsuits, or any liability due to the failure of having updated credentials.

**Title:** Frequency of Use and Perception of Marijuana by Students in Princeton, NJ

Name: Bryan E. Hill

**Preceptors:** Keith Levine, MA, Sr. REHS

**Agency:** Princeton Health Department

**Purpose:** To educate the residents, students and parents of Princeton on current perceptions, ramifications and prevalence of marijuana substance abuse in Princeton NJ.

**Significance:** In the United States the drug situation has been rapidly changing over time. Marijuana in the past 5 years became a talking point from issues of legalization and medical uses. Moreover, many are under the impression that because the drug is being legalized it is safe for all types of use. Today the public has access to substances with over 90% THC. Marijuana of today is not that of the 1980's, even receiving names of "not your father's weed" to show higher potency. The Princeton government needs to have a greater understanding of use and perception surrounding marijuana to better serve the community.

**Method/Approach:** The ultimate goal is to present a public forum in the local middle school with a target audience of students, parents, teachers, and residents. A 21 question online survey tool was created to understand high school age student's perception, frequency of use, and methods of use. Information on how to access this voluntary anonymous online survey was made available to students at 4 area high schools both public and private. Questions regarding fear from law enforcement action, driving under the influence of marijuana, frequency of use, and how the drug is perceived were included in the survey.

**Outcomes/Results:** Of the 21 questions, 3 were chosen as critical measures and analyzed for statistical difference between Upperclassmen (11th and 12th grade) and Underclassmen (9th and 10th grade). 468 responses were collected, (N=468) of these 295 were upperclassmen and 173 were underclassmen. Nine of the 11 possible responses from all three questions were statistically significant difference, using a P value of <0.05. "Do you think a person can become addicted to marijuana?" significant difference was found in the responses *Definitely No* and *Definitely Yes* between the two groups while *Maybe* was not. "Do you think marijuana can negatively affect the user?" Significant difference was found between *Yes* and *Maybe*, while *No* was not seen to have significant difference. "How often do you typically use marijuana?" all responses for this measure were statistically different between groups.

**Evaluation/Conclusion:** By evaluating the responses of the three critical measures between Upper and Underclassmen a clear statistical difference is observed. For the question of addiction potential, Underclassmen believe addiction is more possible than Upperclassmen, for the negative affect question, Underclassmen once again believe it is more likely. Interestingly enough, Upperclassmen have a higher frequency rate of usage indicating a perception change as using marijuana begins as the majority of students report no notable negative effects of the drug along with reporting an enjoyable experience. These data align with national trends across many years, supporting the significance of these findings.

**Title:** The "Warm Welcome" at Memorial Sloan Kettering Cancer Center

Name: Samantha Hornilla

Preceptors: Ayaz Alam, Clinical Practice Supervisor & Stephanie Furman, Practice Leader

**Agency:** Memorial Sloan Kettering Cancer Center

**Purpose:** To assess how MSKCC ensures exceptional patient experience by utilizing the "warm welcome" and being attentive to patients' needs.

**Significance:** As a leading cancer center, it is imperative that MSKCC provides quality care for cancer patients. Therefore, MSKCC uses the "warm welcome" to ensure that all patients' experiences are above satisfactory. The "warm welcome" is the initial encounter patients have before their appointments or visits at MSKCC. The procedure ensures that patients are welcomed at MSKCC with a smile and are provided support by staff. Furthermore, the "warm welcome" includes asking how they are feeling and ensuring that doctors and other Session Assistants are made aware of important patient information. By taking the time to ask patients how they are and similar questions, staff becomes aware of any hardships patients are facing. Being aware helps staff to personalize each patient's visit, and to improve aspects to better patients' experiences at MSKCC.

**Method/Approach:** As a point of check in, the "warm welcome" procedure was used daily with every patient. Patients were greeted with: "Hi, how are you today?" Depending on their responses, they were asked follow up questions like: "How they are you feeling today?" "Did you find the building okay?" "Is there anything else I can help you with?" Afterwards, patients were asked for their first and last names and their date of birth. After being checked in on the scheduling system, patients were given the required paperwork for their appointments and explained anything on the forms that are unclear. Patients were then directed towards which side of the room where they should sit for their convenience. For new visits, required identification must be copied at check in and the necessary paperwork must be filled out. Important medical information provided by the patient was communicated to Session Assistant IIs to ensure a smooth appointment.

**Best Practices:** The "warm welcome" is a process that MSKCC has perfected throughout the years. Patients feel less anxious when they come to their appointments. They feel comfortable to ask questions and voice their concerns. They are checked in successfully with important information relayed to everyone (as needed). As a result, patients are not only provided high quality medical care, but they are also provided exceptional patient assistance.

**Lessons Learned:** At check-in, I learned the significance of welcoming patients when they arrive for their appointment. Good initial interactions with patients are important pathways to creating exceptional experiences at MSKCC.

**Title:** Crossing the Spectrum Through Community Support with Rutgers University

Name: Tina Huang

Preceptors: Angela Maceda, MSW, LSW

**Agency:** MyGOAL: My Gateway to Overcoming Autism in Life, Inc.

**Purpose:** To increase community support and financial resources to families, caregivers, and individuals facing Autism by establishing and executing an element of MyGOAL's Global Development Plan through acquired connections with Rutgers University Student organizations.

**Significance:** Autism spectrum disorder (ASD) affects every 1 in 68 children worldwide; for New Jersey, every 1 in 41 children are diagnosed with the condition <sup>3</sup>. Studies show that caregivers who participate in support groups experience a reduction in stress and negative emotions compared to their non-attendee counterparts <sup>2</sup>. Out of the many childhood conditions, ASD appears to be costly in health care, social care, and educational services <sup>3</sup>. Hence, "support" itself is the most successful form of intervention against social and financial burdens of Autism in local and global settings <sup>4</sup>.

Method/Approach: The goal for fundraising is to raise target amounts for Enrichment Program, Family and Sibling Support Group/Stress Management Program, and Training/Video Conferencing Equipment for the Haven – International Program. Measurable objectives were developed along with respective action steps to determine which approach is feasible and how it can be carried out, in consideration of time, budget, and practicality. The other component is to reach out to the Rutgers community by contacting the E-Boards for partnerships or sponsorships; discussing to the members why MyGOAL's values align with their vision(s); attending their meetings to obtain/distribute information; and developing a relationship with the organizations. Any acquired sponsorship/partnerships from the student organizations were used to evaluate the effectiveness of the fundraising and community support campaign.

**Outcomes:** A connection is obtained from the Rutgers community. The United Black Council, a Rutgers parent organization, known for joining African and Caribbean student organizations to spread cultural awareness and provide advocacy, is finalizing their decision to be a sponsor. Two organizations have disclosed "No" and eight organizations have yet to decide from the email requests. Acquired sponsorship/partnership consent from organization(s) can be observed from emails and/or minutes report. A pie chart is used to show responses from the organizations based on information collected on a table, consisting of name, response, and date of response.

**Conclusion:** Due to time limitations, some objectives of the project were difficult to carry out, such as reaching out to more than one student organization. The student organizations have different interests and contacting through emails and calls took some time out of the process. The Board of Directors can follow along the steps used to assess this project in order to partner with other student organizations. MyGOAL could work on another project to gather more support while carrying out the fundraising campaign.

Title: HIV/AIDS Transitional Housing Program Evaluation

Name: Chelsea Huesing

**Preceptor:** Direct Supervisor: Elisabete Durna, Community Case Manager

**Agency:** New Jersey AIDS Services

**Purpose:** To assess the quality of services offered at the Eric Johnson House using client feedback.

**Significance:** Over one million Americans currently live with HIV, with approximately 56,000 new cases each year (Healthy People 2020). In response to HIV/AIDS crisis, New Jersey AIDS Services provides supportive services, housing opportunities, prevention strategies and education to help their clients achieve sustainable, self-sufficient lives. The New Jersey AIDS Services' residential program, the Eric Johnson House, is a transitional housing facility for individuals who are homeless due to their HIV/AIDS status. Evidence from the 2016 Needs Assessment indicates that individuals who receive supportive services (i.e. mental health, substance abuse, medical transportation, and housing services) have greater CD4 viral load suppression rates (Newark EMA HIV Health Services Planning Council). The Eric Johnson House program receives quarterly evaluations which were analyzed to identify which supportive services are successfully meeting the needs of their clients.

**Method/Approach:** Clients were instructed to rate the services provided on a qualitative scale from 1 (very helpful) to 5 (not helpful). Program evaluation statistics were obtained from February 2004 to March 2017. The services that were rated were 1) medication monitoring, 2) budget assistance, 3) case management, 4) substance abuse counseling, and 5) mental health counseling. An average percentage of each rating was taken each year, and then the average of all years was recorded.

**Outcomes/Results:** The most helpful service was mental health counseling with an average of 74% of clients who rated this service as "very helpful." The least helpful of the five services was budget management, with only 48% of clients rating it as "very helpful." The majority of clients rated medication management, case management, and substance abuse counseling as "very helpful."

**Evaluation/Conclusion:** The program assessments by clients have been increasingly positive over the past 13 years. Budgeting assistance received the lowest percentage of "very helpful" ratings, but the majority of clients still found it to be at least "somewhat helpful." The majority of clients enter the program with \$0.00 to very low income, legal obligations, fines, or outstanding debts. A plan to implement a structured budget management program would be recommended based on the client's personal needs. Transportation was not assessed in the EJH program evaluation, but it would be beneficial to measure the quality of this service in future evaluations.

Citations: <a href="http://bit.ly/2noSEqq">http://bit.ly/2noSEqq</a>

**Title:** Road to Healthier Dietary Habits

Name: Han L. Huynh

Preceptors: Chris O. Poulsen, Director of Health and Human Services

**Agency:** Bridgewater Township Department of Health

**Purpose:** To assess the community's dietary habits through surveying and propose a marketing strategy that aims to reduce the public's insubstantial nutrition intakes.

**Significance:** Obesity is correlated with various major health risk factors, and is one of the major causes of mortality and morbidity in the United States. Over the years, statistics from different studies have shown that the weight of many Americans has increased in parallel with the efforts in consuming healthier foods. Chandon and Wansink (2007) recorded that the proportion of obese U.S. adults has grown from 23% to 31% of the population between 1991 and 2001. It is also estimated that 300,000 U.S. adults die of causes related to obesity each year. These statistics signify the necessity of promoting healthy food consumption and its desired health outcomes, as it will encourage the community to achieve a better and healthier diet.

**Method/Approach:** Two surveys reviewed by the Bridgewater Health Director were emailed to the local community to assess their nutritional diet and outlooks on fast food. The first survey, "Fried and Tested", focused on the marketing aspects of various fast food establishments and the public's reactions to hypothetical situations. "The Nutritional Survey" was the follow-up questionnaire that emphasized on the public's general perception of what healthy food truly entails, as well as their regularity in frequenting different fast food establishments. Data collection was generated on SurveyMonkey when the community started to provide feedbacks. Graphs and other informatics were recorded then analyzed for trends.

**Results:** On April 20th, 2017, there was a total of 260 responses from the "Fried and Tested" survey, and 244 responses from the "Nutritional" survey. Due to limitation of allowed maximum response on Survey Monkey, only data from the first 100 responses of each questionnaire were used. 80% of the responders believed that they had a healthy nutritional diet, 90% of them lived less than 10-minute drive away from the closest fast food establishment, and 46% admitted to having fast food meals every other month. Also, 81.63% of the responders chose to donate the actual cost of the second item of a "Buy One Give One" coupon, if offered, to a local food bank instead of receiving service. The majority of the responses were female (Fried and Tested: 65.96%, Nutritional: 67.02%), and of age 35 to 64 (both over 70%).

**Evaluation/Conclusion:** Survey responses indicated that the majority of Bridgewater population has access to proximate fast food restaurants, but not many frequent these establishments regularly. Many of them as well agreed to offer their second item of a "Buy One Give One" coupon to a charity. This hypothetical question was created to observe the public's reaction to a similar potential healthy-food marketing project of the Township in the future. Data suggested that the community will indeed be open to the initiative.

Title: Grassroots Education on New Fossil Fuel Development in NJ

Name: Justin Hyde

**Preceptors:** Direct Supervisor: Matt Smith, Senior Organizer

**Agency:** Food and Water Watch, New Brunswick

**Purpose:** Assisting with the planning and implementation of grassroots education and advocacy campaigns by organizing a large community forum on the public health impacts of new fossil fuel development in NJ.

**Significance:** Pilgrim's proposed pipeline route travels through densely populated residential areas, as well as the Highlands region, which provides drinking water to more than 4.5 million people. Also, oil pipelines leak, and, pipeline accidents have spilled an average of 76000 barrels per year. Major pipelines regularly reduce local property values and pose serious health and safety risks to nearby resident. The possibility of pipeline spills has been shown time and time again to adversely impact values, in several documented cases properties lost between 10 to 40% of their value. Raising awareness on the negative public health effects of pipelines is integral in halting them from being built.

**Method/Approach:** Community members were invited to attend a public forum where expert speakers spoke on the dangers of new fossil fuel development. An initial Facebook invitation for the forum was released, which was then followed by an extensive community outreach recruitment process. Community outreach included a direct mailing residential list, telephone outreach, as well as door-to-door outreach. A graph highlighting the proposed route of the Pilgrim pipeline as well as information highlighting its negative consequences was presented to residents during the door-to-door outreach. Important updates on upcoming events regarding the pipeline were shared through telephone outreach. Data analysis was conducted find appropriate residential targets for the direct mailing list.

**Outcomes/Results:** A Facebook invitation served as a pre-post test prior to the community outreach that was conducted to recruit residents for the forum. The invitation indicated that twenty-two people were to attend the forum. After the community outreach was conducted, a total of fifty-five people attended the forum. The forum also served as a place to recruit new advocates to work with the coalition. Of the fifty-five attendees, twelve people volunteered their services to help the coalition with combatting future environmental threats at the local level.

**Evaluation/Conclusion:** In conclusion, more than half of the people that attended the forum (thirty-three people) were due to the community outreach that was conducted through direct mailing, telephone outreach, and door-to-door outreach. Furthermore, the community forum served as an educational tool to (a) educate residents that would be affected by the pipeline, and would have otherwise not known the negative consequences and (b) recruit more residents to help combat future environmental and public health threats for New Jersey residents.

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Title: Tracking Rehabilitation Patient Satisfaction

Name: Katrina Iledan

**Preceptors:** Yiwei Xie, Director of Rehabilitation and Rashmi Parikh, Director of Rehabilitation

**Agency:** Somerset Woods Rehabilitation and Nursing Center

**Purpose:** Implement and analyze rehabilitation patient satisfaction surveys to improve care in a nursing home setting.

**Significance:** In the United States, there are about 1.5 million nursing home residents. Most are in care because they require help from nurses, aides, physical therapists, occupational therapists, and speech therapists. Research has shown that satisfied patients will share their positive experience with five others, on average, and dissatisfied patiens complain to nine (or more) people (Segal, 2009). Additionally, there is evidence of a reciprocal relationship between patient satisfaction and continuity of care (Segal, 2009). Somerset Woods Rehabilitation and Nursing Center is a new facility that opened up in May 2016. Due to the newness of the facility, it is important to analyze the quality of care that the rehabilitation facility has been providing.

**Method/Approach:** To conduct the project, high-functioning patients were given the patient satisfaction survey to complete. Confidentiality is a high priority, therefore, neither patient medical history nor personal information was recorded. The survey consisted of ten questions that cover the areas of professionalism, quality, family-centeredness, interpersonal skills, and overall impression. I considered the goals and essential functions of the facility before deciding what questions to put into the survey. The patient satisfaction survey is a valuable tool for improving communication between healthcare providers and patients.

**Outcomes/Results:** Of the sample size cohort (n=10), 80% of patients were very satisfied with the ten items related to patient satisfaction. Ninety percent of patients were very satisfied with cleanliness, friendliness, professionalism, and courtesy of the staff at Somerset Woods Rehabilitation and Nursing Center. Furthermore, 85% of patients improved their overall health and well-being by participating in therapy. Only 70% of patients were very satisfied with how their therapists involved family in treatment decision making, which makes this area the lowest scoring.

**Evaluation/Conclusion:** Overall, the rehabilitation department is favored by most patients. For improvement, it is recommended that therapists focus on giving patients and families the opportunity to participate in and contribute to treatment planning. However, the small sample size limited the data. Providing patient centered care is a valuable goal to have as a facility because it ensures that patient values guide all clinical decisions. Consistently improving patient satisfaction will allow for effective communication, empathy, and parternship between therapists and patients.

**Title:** Designing Targeted Educational Interventions to Reduce Alcohol and Drug Use on

Campus

Name: Janet Isaiah

**Preceptor:** Direct Supervisor: Tanisha Riley, MA, MCHES, Health Education Specialist

**Agency:** Rutgers Health Services: Health Outreach Promotion and Education (H.O.P.E.)

**Purpose:** To improve educational interventions and develop workshops to reduce the risk and consequences of alcohol and other drug use on campus.

**Significance:** On average, college students are more likely to use alcohol and other drugs. A study that was conducted at the Center for Alcohol Studies mentioned that, two out of five (40%) American college students are considered heavy drinkers (O'Malley & Johnston, 2015). Through educational interventions, students can increase their knowledge of alcohol and other drugs and practice safer drinking habits (Mike Phillips, 2004). This can also help reduce and prevent the short and long term effect of alcohol and other drugs such as memory loss, academic failure, car accidents, sexually transmitted disease and suicide (Kazemi, 2011). Designing effective educational interventions and programs will help make Rutgers University a safe campus for students.

**Method/Approach:** To collect and analyze data, student information was recorded using an Excel spreadsheet, which included the student's name, Rutgers ID, residence halls and the campuses. A logic model, evaluation report data, SAKAI calendar, first violation form, curriculum and data bases with student responses that recorded students' perceptions regarding alcohol and drug use. These tools were used to develop targeted educational material to address at risk behavior and examine trends on campus alcohol and drug use, to design a more comprehensive socioecological approach to preventive programing.

**Outcomes/Results:** There were 42 alcohol and other drugs workshops that were conducted in the Spring 2017 semester compared to Fall 2016. A total of 32 workshops were conducted in Fall 2016. A total of 1641 students attended the workshops in the spring semester while 1045 students attended the workshops in the fall semester. 12 marijuana workshops sessions were conducted for the Spring 2017 semester.

**Conclusion:** There was an overall increase in workshops requested from the Fall 2016 semester to the Spring 2017 semester. Designing targeted interventions related to substance use helped to identify students that require a higher level of care regarding substance use. Targeted interventions helped students identify behaviors that were high-risk and increased awareness of the importance of risk reduction to improve campus safety.

**Title:** What Repeal and Replace Means for New Jersey

Name: Tyrus Jackson

**Preceptors:** Direct Supervisor: Phil Echevarria, Policy Analyst, Government Relations & Policy

Supervisor: Samantha DeAlmeida, Legislative Strategist, Government Relations & Policy

**Agency:** New Jersey Hospital Association

**Purpose:** To evaluate the current effects of the ACA on the State of New Jersey and analyze any impact of repealing and replacing the ACA on the State.

**Significance:** The Patient Protection and Affordable Care Act was signed into law on March 23, 2010. The ACA was fully adopted in New Jersey leading it to be ranked in the top ten of the healthiest states in the United States (The Hill, 2016). Current data shows that in New Jersey, the uninsured rate has dropped from 15% to 6% (NJHA). This year the House Republicans proposed the American Health Care Act (AHCA) to replace the ACA. The proposals within the AHCA would cut both the individual and employer mandate, which requires individuals and companies with a certain number of employees to have insurance. It would also change Medicaid payments to per capita rates, which could lead to states being underfunded. (New York Times, 2017).

**Method/Approach:** Data collection and analysis was done through information collected by NJHA, which pertained to individuals currently covered in New Jersey under ACA. Information was also collected from the Congressional Budget Office's nationwide financial report on the impact of the ACHA. Through the comparison of the two reports, an estimate of how New Jersey would be affected was derived.

Outcomes/Results: Currently in New Jersey, about 1.8 million residents are covered through Medicaid. Of that 1.8 million, 550,000 people were at risk for losing Medicaid coverage under the American Health Care Act. This Act would have lead and additional 250,000 people to lose coverage through the closing of the health insurance exchanges. Financial changes under this proposed legislation would cost the hospitals in New Jersey 1 billion dollars annually. This loss comes from the 4.4 billion dollars that the state would lose in Medicaid matching. The loss of Medicaid matching dollars would also affect mental health, addiction, and long term care facilities that support Medicaid recipients. The cost of all the services previously stated would burden New Jersey's charity care budget, which is currently set for 302 million dollars.

**Evaluation/Conclusion:** The American Health Care Act did not ultimately pass largely because of reductions in Medicaid reimbursement and the concern of higher premiums. Moving forward, future laws focusing on health care will need to consider lowering the cost of health care and increasing access to doctor's offices and hospitals. These changes will create a focus on preventative care and improve outcomes.

**Title:** Expanding Fresh Fruits and Vegetables Availability in Food Pantries and Food

Banks in Somerset County

Name: Ameen Jafferie

**Preceptors:** Director, Community Health: Serena Collado, MS

**Agency:** RWJUH- Somerset- Community Health

**Purpose:** To prevent and reduce the severity of obesity by increasing the amount of fruits and vegetables served in food banks and food pantries in Somerset County.

**Significance:** Obesity is a priority health issue in Somerset County as outlined in the 2016 Healthier Somerset Community Health Improvement Plan (CHIP). According to the 2015 Somerset County Community Health Needs Assessment, 62% of residents were overweight or obese. A healthy diet consisting of fruits and vegetables could maintain a healthy weight and thereby, reduce the risk for obesity, type 2 diabetes, hypertension, heart disease, and certain cancers. Rising rates of obesity and obesity related diseases are calling for action across all community sectors. Improved food quality in food pantries could improve the well-being of clients and save thousands in healthcare cost savings for struggling families. Food pantries contribute to the overall quality of foods that low-income families consume, thereby ensuring food pantries provide healthy meals is more important than ever.

**Method/Approach:** Through web-search and inquiries with public health professionals I had to compile a master list of all food pantries, food banks, and farmers in Somerset County. I designed a survey to ascertain current fresh fruit and vegetables distribution per month. With the compiled list, I surveyed all stakeholders to ascertain current distribution, donations, and barriers to donation of fruits and vegetables.

**Outcomes/Results:** The results of the survey would be used to develop and implement a distribution plan to increase the pounds of fruits and vegetables by 10% in pounds (CHIP 2.1). The survey identified food banks and food pantries that regularly serve fruits and vegetables and local farmers that donate to food banks and pantries. The findings also identified any barriers for serving and donating fruits and vegetables. However, a common theme that existed was the lack of data collection for the amount of fruits and vegetables distributed, in pounds. Based off available data and estimations from food bank and food pantry coordinators, these facilities must receive at least 1,422 pounds more per year to satisfy CHIP 2.1 objectives.

**Evaluation/Conclusion:** The findings from the survey will be used to determine which food pantry or food bank will receive 1,422 pounds of fruits and vegetables more per year. The master list and findings will be used to develop a distribution plan from the willing farmers to food banks and pantries to individuals. Successful implementation of a distribution plan will increase the amount of fruits and vegetables served in food banks and pantries in Somerset County and meet CHIP 2.1 requirements.

**Title:** Database and Maintenance for Transit Arts

Name: Rigel Janette

**Preceptors:** Christine Blanco, Manager, Facilities Signage & Transit Arts Programs

**Agency:** NJ Transit, Newark, NJ

**Purpose:** To assess artwork around the NJ Transit system, and determine which are in the greatest need of repair and then develop a system of implementing any maintenance deemed necessary.

**Significance:** The Transit Arts program at NJ Transit began in 1994 with the construction of the Hudson-Bergen Light Rail. Since then, nearly two hundred art installations have been commissioned around the system. According to a 2013 report released by the American Public Transportation Association, transit art should have a dedicated maintenance budget and schedule. NJ Transit has approved a preliminary budget for heavy maintenance work this year, and is in the process of reviewing necessary repair work.

**Method/Approach:** There are two main components of this project. The first is to gather data of current field conditions through visits to every station that has artwork. All issues (graffiti, deterioration, etc.) are recorded and photo documented, and are put into a database on OneNote. The second component of this project is to digitize a large transit arts archive, making the information more accessible. This involves scanning documents, making them "readable" on the computer, and organizing them in a user-friendly manner. This information is migrated into the OneNote database.

**Outcomes/Results:** The project will yield a OneNote database complete with current data and records. The database will be separated by each rail line, and stations with transit art will be listed accordingly. Each station will have a template for future reports, photos, and observations. Wherever possible, there will also be artist contact info and maintenance procedures for each installation.

The OneNote database is part of a larger effort to expand the Transit Arts program, and will be used as a "best practices" guide. The OneNote database will allow NJ Transit to gain an understanding of what is easy to maintain, and what should be avoided in the future.

**Evaluation/Conclusion:** The OneNote database will be used to distribute the department budget to projects, and offer important tools for maintenance. The success of this project will be measured by how effectively the department budget is used.

Transit art can affect the experience of a daily commuter. Artwork that is in a state of disrepair has a negative effect towards one's commute. With that logic, beautiful artwork should improve commuter experience. If customer feedback surveys show a positive trend in satisfaction, then perhaps part of that change can be attributed to the improvement of artwork throughout the system.

Title: Classroom Assistant

Name: Serena Jao

**Preceptors:** Tara Conover, Head Teacher

**Agency:** Douglass Psychology Child Study Center, Rutgers University

**Purpose:** To assess young children's understanding of the human heart to develop new educational approaches with the goal to improve and establish healthy eating habits and high activity levels at a young age.

**Significance:** A healthy heart is crucial to getting the most out of life, no matter what the age. Heart disease and cardiovascular disease have been the leading causes of death in the United States. These factors cause about 25% of deaths a year, resulting in over \$200 billion of American dollars annually. The root of heart disease in most adults are obesity, unhealthy cholesterol levels, high blood pressure, and diabetes. The American Heart Association believes that these factors can be prevented in children through early education. This belief along with the consistent growth of heart disease in Americans suggest a lack of education in American youth, since heart disease has been on the rise since 2011. Dedicating one week of lessons to educate children on their hearts and ways to keep them healthy will help to address this issue.

**Method/Approach:** A general verbal questionnaire was given to 16 children between the ages of 4 and 5 to gauge how much information they have on their hearts and how to keep it healthy. Lesson plans were then developed, designed to highlight 1) The location and function of the heart, 2) How the heart pumps blood through the body, 3) Why it's important to eat healthy foods and what foods are considered healthy, and 4) Why getting plenty of exercise is essential for a healthy heart. Each lesson was accompanied by different activities for the children to participate in to further enforce the information they learned that day. The children were then asked similar questions at the end of the four days to reassess their knowledge on their hearts and how to keep them healthy.

**Outcomes/Results:** Of the 16 children, 100% of them knew where to find their hearts. Roughly 3 to 5 children knew the function of their hearts, but none thought of their hearts as a muscle, or that it pumps blood through the body. About 50% of the students believed they ate healthy foods, while 100% were able to distinguish between healthy and unhealthy foods. However, when asked why eating healthy foods were important none of them were able to connect the answer to their hearts. The same information was found for what was considered healthy and unhealthy activities, and why regular exercise is important.

**Evaluation/Conclusion:** Majority of the children had some form of prior knowledge surrounding their hearts. At the end of the week, all the children were able to tell me what their hearts do, and different ways to make sure their hearts are happy and healthy. This information will be reinforced throughout the semester with hopes to encourage healthy habits at a young age that carry through with them into adulthood. Further studies are required.

Title: Transgender Youth Education Initiative Using Animation Software

Name: Daniela Jimenez

Preceptors: Direct Supervisor: Dr. Gloria Bachmann, MD, Interim Chair of Department of OBGYN,

and Reproductive Sciences

Project Supervisor: Dr. Ian Marshall, MD, Pediatric Endocrinologist

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

**Purpose:** To improve the health education of transgender youth by creating Powtoon videos that provide information about gender identity and sexuality.

**Significance:** Transgender individuals represent a growing population in the United States. About 3.5% of adults in the U.S identify themselves as gay, lesbian, or bisexual, and an additional 0.3 % adults are transgender. This suggests that there are at least nine million LGBT Americans, which is roughly equivalent to the population of New Jersey (Gates, Gary J., 2011). Many health disparities exist in the transgender community, including social stigma, discrimination, and the denial of their civil and human rights. Even though there is discrimination towards adult transgender individuals, transgender youth seem to suffer the most when it comes to attaining proper healthcare. Unfortunately, many available transgender educational resources are biased and foster a culture of fear surrounding healthcare. Our Powtoon videos are a positive and nonjudgmental educational alternative that will provide information to promote young individuals to be open to speak about transgender health to their healthcare provider, their families, and their friends.

**Method:** The educational videos are made using animation software called Powtoon Studios. The Powtoon software is a tool that allows developing fun animated clips. These videos become easy to watch for young individual as it grabs their attention and allows them to better understand and engage with the topic being taught. When the research started, a script was first written with information about gender and sexuality that should be in the video. The Powtoon videos are being created and will be able to give youth the knowledge about gender and sexuality.

**Outcomes:** Preliminary feedback has been positive about the content in the script and Powtoon video. As of now, a survey to acquire feedback from transgender youth and their parents has been submitted to the Institutional Review Board (IRB) for the Powtoon videos about the specific topics and it is currently waiting for approval to begin the process. The goal of the Powtoon videos is to serve as a better way for pediatric patients to be educated than using traditional paperwork such as pamphlets.

**Conclusion:** Our Powtoon videos present clear and unbiased health information to pediatric patients that are embarking on their gender identity journey.

**Title:** Stroke Education Evaluation and Improvement Plan

Name: Daniel John

**Preceptors:** Camilla Comer-Carruthers, MPH, Manager, Community Health Education

**Agency:** RWJUH - Community Health Promotions Program

**Purpose:** To analyze and evaluate the current risk of stroke and heart disease through various health screening events conducted by the Community Health Promotions Program at Robert Wood Johnson University Hospital in Middlesex county.

**Significance:** Through various community outreach events within the Middlesex county area, Robert Wood Johnson has made an effort to educate the population through screening events on how blood pressure and cholesterol affect their risk for stroke and heart disease. As of 2014, according to New Jersey State Health Assessment Data, both heart disease and stroke fall within the top 3 leading causes of death. This is significant because majority of poor health practices associated with stroke are also associated with heart disease. According to the assessment, 25.7% of deaths are related to heart disease in Middlesex county. Educating and promoting practices that reduce the prevalence of stroke will ultimately reduce the leading cause of death in the area, which is heart disease.

**Method/Approach:** The success of these programs will be measured through analysis of previous data, aggregated by year, and collected through free screenings conducted at events hosted and advertised by various RWJ Fitness Centers and health fairs through 2014 -2016. Based on the comparisons of blood pressure and cholesterol percentages throughout the years, a measurable pattern can be established to create a plan that addresses any problems that concern the prevalence of heart disease in Middlesex. Participants were measured by their race, blood pressure level, and cholesterol status. Depending on how each of these levels of measurement have changed throughout the timespan, the effectiveness of the various events can be measured by the most prevalent levels of blood pressure, cholesterol, and races of attendants each year.

**Outcomes/Results:** Throughout the years there has been a decrease in not only amount of events, but the amount of people attending. This alone causes difficulties when it comes to measuring health outcomes of the population due to the consecutively lower sample sizes. However, much of the data stayed consistent across the years, with African Americans being the largest in attendance and majority of cholesterol levels being in desirable ranges. However, blood pressure levels increased each year among the collected data with those exhibiting pre-hypertension levels in 2015 and 2016 at 34% and 46%, respectively.

**Evaluation/Conclusion:** Overall, levels of blood pressure and cholesterol have been stagnant through 2014-2016. This may be due to many event locations being reused, resulting in a skewed representation of the populations living there. Instead of aggregating the data, separating it into individual screening samples gives a better measurement of observed populations and the ability to track the improvement of repeat participants. If the issue of heart disease and stroke is to be properly educated to the residents of Middlesex county, then there needs to be a diversified and consistent effort in reaching out to populations representing various levels of the health spectrum.

Title: Evaluating Everyday Racial Discrimination as a Risk Factor for Uterine Fibroid

Development in Black Women

Name: Nykesha Johnson

**Preceptors:** Dawne Mouzon, Ph.D.

**Agency:** Institute of Health, Health Care Policy, and Aging Research and Edward J. Bloustein

School of Planning and Public Policy

**Purpose:** To determine if everyday racial discrimination has a significant enough impact on the development of uterine fibroids in Black women to be considered a risk factor.

**Significance:** Uterine fibroids are masses that can develop within the uterus, and though they are primarily benign they can still cause extreme pain if allowed to multiply or grow in size. In addition to the pain associated with severe symptoms, uterine fibroids also increase the risk for complications during pregnancy and delivery. Black women are three times more likely to develop uterine fibroids than white women, experience more severe symptoms, and develop fibroids earlier in life. The reasons for these differences are not well understood, but prior research has indicated that increased stress levels and experiences of racial discrimination among black women may pose a possible explanation.

**Method/Approach:** Literature reviews were conducted on uterine fibroids, and that information was used to create a hypothesis on why uterine fibroids are more prevalent among Black women. Data was then obtained from the National Survey of American Life Survey (NSAL) on experiences of racial discrimination, diagnoses of uterine fibroids, chronic stress and additional demographics (essentially variables that were close to what was found in literature). SPSS was then used to determine statistical significance between chosen variables.

**Outcomes/Results:** The NSAL consisted of 3,175 women total, of which 876 identified as Afro-Caribbean and 2,299 identified as African American. A T-test combining both groups revealed that everyday discrimination is significantly associated with having fibroids in Black women (10.6 vs. 11.4, p= 0.04). Another T-test showed that stress is significantly associated with having fibroids in all women (1.77 vs. 1.99 p<0.001). Also significant correlation exists between stress and discrimination overall and within each racial group (p<0.001).

**Evaluation/Conclusion:** This study was able to establish correlation between stress (a known risk factor of uterine fibroids) and racial discrimination (a possible one). More research must be done in order to establish definitive causation, but this study has revealed that racial discrimination should be studied as a risk factor in fibroid development, especially in Black women.

#### Link to References:

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Title: Coastal Vulnerability Assessment of Newark, NJ Riverfront

Name: Jasmine Jones-Bynes

**Preceptors:** Stacy Krause, PP, AICP, CFM, Senior Research Associate

**Agency:** Environmental Analysis and Communications Group, Rutgers University

**Purpose:** Identify and measure the vulnerability of assets and populations to projected flooding at year 2050 sea-level rise with a category 1 storm surge along the Passaic River waterfront in Newark, New Jersey.

**Significance:** According to A Geological Perspective on Sea-Level Rise and its Impacts Along the U.S Mid-Atlantic Coast (Miller et al, 2013) there is a central projection of 1.5 feet of sea level rise along the New Jersey shore for 2050. Sea-level rise causes many problems for coastal communities including, but not limited to, increased frequency of flooding, permanent flooding, cost of repairing damages to homes and businesses, erosion of coast, cost of damage to infrastructure and displacement of residents. Understanding the demographics of those who are vulnerable to the impacts of sea-level rise is important for analyzing environmental justice. As explained in Mapping Urban Risk: Flood Hazards, Race and Environmental Justice in New York (Maantay and Maroko, 2009) low-income and minority groups have a disproportionate exposure to impacts of natural hazards such as floods, droughts or hurricanes.

Method/Approach: The City of Newark created a conceptual drawing of the expanded Passaic River Waterfront Park. The 2010 United States Census blocks and tracts that intersect with the Passaic River Waterfront Park concept was considered the study area and named the Passaic River Waterfront Park Area. Census data was collected at the block and tract level and used to identify the demographics of the population of the study area. Data from Newark City Open Data was used to identify community assets. Using this data, a list was created of assets and populations vulnerable to flooding. Data from NJDEP was used to measure the inundation levels of each asset at a Category 1 storm surge. Maps and data tables were created showing the level of flooding on each asset and census geography.

**Outcomes/Results:** The research found that there are 19 census blocks and 5 census tracts that intersect within the Passaic River Waterfront Park Area. The total population within the census tracts is 16,151, the average median income of the population within the census tracts is \$41,135 and majority of the community (43%) speaks a Spanish language. There are 25 assets within the study area. The average level of inundation for the assets is 3.33 feet.

**Evaluation/Conclusion:** The CVA is evaluated based on the community's implementation of the data. Indicators of successful implementation of the CVA are community resilience plans, zoning codes that promote open space and the absence of heavy infrastructure investments in high flood risk areas.

**Title:** Developing Civic Education Workshops

Name: Rhiannon Jones

Preceptors: Dr. Elizabeth C. Matto, Youth Political Participation Program Director

**Agency:** Eagleton Institute of Politics, Rutgers University

**Purpose:** To develop evidence-based in-class workshops for New Brunswick High School students that promote civic education and engagement.

**Significance:** In the most recent National Assessment of Educational Progress's Civics Assessment more than two-thirds of all American students scored below proficient, with less than a fifth of high school seniors able to explain how citizen participation benefits democracy (2010). Black and Latino students were twice as likely as their white counterparts to score below proficient, a gap similarly reflected among high and low socioeconomic status students. This gap reflects the decreased civic education opportunities in classrooms reported by minority and low-income students. As of 2015, New Brunswick High School's (NBHS) student body was 85% Latino and 14% Black, with 86% of their total enrollment considered economically disadvantaged, representing the key cohort requiring civic education opportunities.

**Method/Approach:** A literature review was conducted to assess the current state of civic education and learn best practices for developing a concise civic education workshop. Demographic research of the New Brunswick population was also conducted, to allow the workshop to be tailored to the experiences of NBHS students. Research was linked with action as a four-part 80-minute in-class workshop focused on skills, knowledge and attitudes was developed for NBHS sophomores. The RU Ready team was trained in delivering the workshop and ultimately nine classes were visited with the workshop reaching a total of 241 students.

**Outcomes/Results:** A seven question evaluation survey was designed for NBHS students. 100% of students responded they learned about new ways to participate in the political process through RU Ready. Additionally, 93% of students said they felt somewhat to very confident in applying the skills they learned to real life situations. The RU Ready workshops provide an adaptable model of how to successfully work introductory civic education into modern classrooms for other schools and organizations.

**Evaluation/Conclusion:** Students reported positive reactions to RU Ready via the survey evaluation, most commonly describing programming as informative, fun, motivational and important. With 73% of students reporting they are more likely to be involved with their community after participating in the program we hope the knowledge and skills they gained will lead them to be more civically engaged citizens in the future. Limitations of this project include the small number of students who participated in the workshops (approximately 14% of the student body) as well as the one-time nature of the program. The RU Ready program has existed for ten years, with workshop materials being cataloged since 2014, allowing future interns to build upon past research.

**Title:** Evaluating Impact For the Masakhane Center for 2016-17

Name: Shourie Jonna

**Preceptors:** Direct Supervisor: Stephanie Franklin, Executive Director and Founder

**Agency:** The Masakhane Center

**Purpose:** To analyze workshop evaluations from the past year to evaluate success

**Significance:** The Masakhane center targets youth organizations and schools in Newark, NJ to provide comprehensive and inclusive sexuality education. New Jersey does not have any state laws mandating such a curriculum thus the Masakhane center aims to provide this knowledge to empower youths with knowledge to lead healthy lives. Annual program evaluations improve allow the center to improve on existing workshops and build new ones.

**Method/Approach:** Workshop form data from July 2016 until April 2017 was analyzed. Data for 227 workshops were exported to a spreadsheet. The data were analyzed for the program locations, workshop topics, and participants demographics in the categories of age, race, gender, and sexuality. The data also include quantities of safer sex materials distributed and qualitative assessments of participant learning, engagement, and enjoyment.

Outcomes/Results: The Masakhane Center reached 1270 people through programming in 10 locations; Three of these locations were schools, East Side High School, Science Park High School, and East Side Talent Development Academy, which are split into 20 different class groups. Age ranges included 48 learners (3.78%) under 13 years, 563 (44.33%) 13 to 15, 575 (45.27%) 16 to 19, 83 (6.54%) 20-26 and 1 person (.08%) more than 27 years old. The racial breakdown was: 0.87% Asian, 36.54% Black/African-American, 41.42% Latinx/Hispanic, 0.16% Native American, 0.16% Pacific Islander, 6.38 % White, 9.45% Multiracial, and 5.04% other racial identity. The most common workshop completed in this period was "All About the Body" while the least common are "Everything But Intercourse", "Relationship Communication", "Sex Toys", and "Sex Under the Influence." The most popular workshop was "Sex Toys" while the least popular was "Exploring Sexual Orientation." The average participant enjoyment and learning score was 4.26 and 4.19 out of 5, respectively.

**Evaluation/Conclusion:** The high participation and learning scores indicate effective programming and facilitation. Although the center offers many programs, only a handful were used with some being very popular and conducted more than 10 times. The findings suggest a continuation of current practices but with a streamlining of programs offered.

Title: Strategic Planning For Recruiting Transgenders Living With HIV

Name: Karrelle Joseph

**Preceptors:** Deloris Dockrey, MPH, Clinic Director

**Agency:** Hyacinth AIDS Foundation

**Purpose:** To develop strategies to increase recruitment and retention in the transgender community so they are comfortable to walk-in and utilize the amenities that the Hyacinth AIDS Foundation offers.

**Significance:** Hyacinth Health and Wellness Clinic, Newark location, provides treatment, counseling and testing to individuals of all walks of life. One area that is lacking in this location is the absence of transgender patients. The clinic would like to be more diverse and welcomes the LGBTQ population. Hyacinth would need to increase their recruitment of transgender patients. Hyacinth already provides the necessary services needed to aid the transgender community. Minor improvements will be needed such as, creating a safe environment, providing medical services specific to the population and supportive services that would allow them to be comfortable with the facility. Based on research these tools will help Hyacinth increase recruitment and avoid retention.

**Method/Approach:** To better meet the needs for transgenders at Hyacinth, a recruitment initiative was suggested to increase the number of transgender patients at the clinic. Primary resources included speaking with the director of Hyacinth which provided a better understanding of the clinic needs. Secondary resources included researching other LGBTQ clinics in the NY area to see what steps and actions they took with recruitment, and had informal discussions with client group participants.

Outcomes/Result: Based on the information gathered, a strategic marketing plan was implemented. Recruitment requires 1) brochures and flyers for handout, 2) events geared towards the LGBTQ community with incentives, 3) creating an interactive website where they can see the amenities the clinic offers and 4) training of staff to use proper pronouns when addressing member of the LGBTQ community. To avoid retention, the addition of services such as hormone replacement therapy, chest/breast health and harm reduction is important. It is also recommended that Hyacinth employ an LGBTQ member, someone the patients can identify with.

**Evaluation/Conclusion:** A marketing plan was presented to my preceptor and internship coordinator for future continued development. This marketing plan will be available for Hyacinth to work on and implement these strategies. The plan would encourage Hyacinth to conduct surveys among community members to provide ongoing data on the population they want to serve.

**Title:** Evaluating Food Donations by Seasonality

Name: Christina Julian

**Preceptors:** Kara Sendell

**Agency:** Move For Hunger

**Purpose:** To analyze data on food donations over the course of the year in order provide recommendations that will increase total pounds of food donated.

**Significance:** Nearly 50 million Americans are food insecure. Food insecurity is a measure of the risk for hunger which can lead to a variety of health issues. Food banks help to solve this problem by distributing food donations to food pantries and meal programs that serve members of the community who are food insecure. Move For Hunger mobilizes the relocation industry to fight hunger and reduce food waste. Over the past eight years Move for Hunger has collected over 7.6 million pounds of food and delivered it to food banks across the United States with the help of a network of over 700 moving companies and partners.

**Method/Approach:** Data was collected from Salesforce (CRM software) from the years 2014-2016 for the two types of food donations that Move For Hunger assists with, 1) from a move and 2) from events (food drive). The data was split up by month of the year and then categorized into seasons (Winter, Spring, Summer, Fall) to analyze 1) pounds of food donated and 2) number of events/deliveries throughout the year. Percentages were found by adding up the total pounds and events/deliveries for each month for the three years and then dividing that by the total pounds and events/deliveries for each type of food donation.

**Outcomes/Results:** Food donations from moves accounted for a total of 395,418.00 pounds and 1202 deliveries over the 3 years while food donations from events accounted for 4,736,580.00 pounds and a total of 1374 events. For donations from a move the most pounds (39%) and deliveries (28%) were made during the fall while the lowest number of pounds (16%) and deliveries (23%) were made in the spring. For donations from events the most pounds were collected in the spring (43%) while the most events were held in the fall (34%). The lowest number of events (12%) and the lowest number of pounds (10%) were donated in the summer.

**Evaluation/Conclusion:** In order to increase the number of pounds collected from moves promotional fliers should be created for movers to give to their clients and telephone calls should be made to engage partners and boost mover engagement. Focusing on the spring because that is the season with the smallest number of deliveries and pounds donated and summer because that is peak moving season. To increase the success of food drives the Move For Hunger team can become more involved with planning and coordination of events, give tips and frequent follow-ups with the organizers increase the pounds of food collected.

**Title:** Nutritional Education for Children in New Brunswick

Name: Harkamal Kahlon

**Preceptors:** Yesenia Medina-Hernandez, Program Coordinator

Mariam Merced, Program Director

**Agency:** Robert Wood Johnson University Hospital Community Health Promotion Program

**Purpose:** To assess the nutritional knowledge of children in New Brunswick and make recommendations to enhance a healthy lifestyle based on findings.

**Significance:** According to American Heart Association, children should be consuming at least 3 servings of fruits, and at least 2 to 4.5 servings of vegetables, daily. However, children in many areas of the United States are falling into the habits of poor nutritional behaviors. As a result of the New Jersey Childhood Obesity Study (2010), it was reported that many children in New Brunswick have extremely low consumption rates of the right serving size of fruits and vegetables. According to the study, 45% of the children were eating and/or drinking less than two servings of fruit every day, meanwhile 70% of children were eating and/or drinking less than two servings of vegetables every day. Many of the poor nutritional behaviors arise from problems such as lack of or limited nutritional knowledge of healthy nutritious diets and appropriate eating habits (Head Start Body Start, 2012). Educating children on the benefits of healthy foods on various parts of the body can improve their nutritional behaviors and boost healthy food consumption.

**Method/Approach:** A pre and post test was conducted for a sample of participants from second to third, and fourth to fifth grade in New Brunswick. First, the participants complete a pre test, which measures their prior knowledge on the benefits of nutrition on the body, before a lesson is given. After the completion of the pre test, a lesson on selected nutritious foods and their benefits on the body is given to the participants. Following the lesson, the participants completed the posttest, which measures how much they learned from the lesson.

**Outcomes/Results:** Out of a sample size (n) of 13 second and third graders, there was an average of five correct answers in the pre test, and an average of about nine correct answers in the post test, a 56 percent improvement. In regards to the sample of 4th and 5th graders (n=11), there was an average of about 7 correct answers in the pre test, and an average of about 11 correct answers in the post test, a 64 percent improvement.

**Evaluation/Conclusion:** In retrospect to the results, participants performed better in the post test than they did in the pre test. The results indicate that a majority of the participants comprehended the nutrition lessons, which generally improved their knowledge, and this means that there needs to be further intervention to educate children about nutrition in order to increase their knowledge and thus increase their vegetable and fruit intake.

#### Sources:

**Title:** Best Practices in Patient Care Coordination as a Session Assistant

Name: Manasi Kansara

**Preceptors:** Avi Mark, Clinical Practice Manager

**Agency:** Memorial Sloan Kettering Cancer Center

**Purpose:** To portray how Memorial Sloan Kettering Cancer Center's "warm welcome" approach to patient care coordination eases the burden of the patient's geographic, financial, physical and emotional barriers to healthcare.

**Significance:** Memorial Sloan Kettering Cancer Center is at the forefront of cancer treatment. In 2013, almost 137,000 patients were seen at all of MSKCC's locations and a total of 571,922 outpatient visits were completed. MSKCC provides their patients with the best care possible in order to help them feel more at ease with their situations. Patients are trying to deal with the most difficult time in their lives so the onus is on MSKCC staff to help reduce their barriers to care. By implementing a "warm welcome" approach to patient intake, staff is able to address any concerns and subsequently ease the burden of the barriers.

**Approach:** Over a several month period from January 17 to May 5, the "warm welcome" approach was implemented to check in patients. Observations were made about the results of implementing this strategy in a clinic responsible for five different workflows: pre-surgical testing, cytology, ultrasound, X-ray and lab work/EKG. Subsequent observations were made about how each step to the "warm welcome" alleviated some of the barriers to care for each patient. By greeting the patient, setting expectations and reviewing appointments, staff is able to ensure the patient has the best experience at MSKCC.

Best Practices: The most successful practices in the "warm welcome" approach have been to set patient expectations by being transparent and building trust. In a clinic that serves five different workflows, patients often do not understand why someone else is brought back before them. By being transparent from the start, patients are at ease knowing they have not been forgotten. It is also important to review appointments with a patient. Often, a patient would come in just for an X-ray or biopsy but by reviewing their appointments for the day, the session assistant is aware they also have lab work scheduled at a different location. By recognizing this and rescheduling the lab appointment for the current location, the patient's financial and geographic burdens are reduced. While this may seem to be a bit tedious or time consuming for the staff, it is all done in the best interest of the patient.

**Lessons Learned:** Students learned the significance of how every action taken has to be in the best interest of the patient. Hospital staff needs to absorb some of the patient's burden. It is important not to encumber patients with the check in process but rather maintain a "warm welcome" and ensure their barriers to the best care are being reduced.

**Title:** Food Insecurity on the Rutgers University-New Brunswick Campus

Name: Kelsey Kaskoun

Preceptor: Director: Cara Cuite, Ph.D., Assistant Extension Specialist, Department of Human Ecology

**Agency:** Rutgers University- New Brunswick

**Purpose:** To identify and analyze the student population at Rutgers University- New Brunswick campus that is food insecure and make recommendations to reduce food insecurity.

**Significance:** Food insecurity is an under-recognized problem on college campuses, as well as easy access to balanced meals. Dubrik, Matthews, and Cady found that "twenty-five percent of community college students qualified as having very low food security, compared to 20 percent at four-year schools," and that students of color are more likely to be affected by food insecurity (2016). Lack of proper nutrition as well as funds for both food and educational expenses have many adverse effects on students' performance in school, reporting missing classes, not purchasing required textbooks, and withdrawing from courses. By implementing programs such as student food pantries, dining hall meal donations from other students, and increased access to benefits, colleges and universities can help alleviate the silent issue of food insecurity on their campuses.

**Method/Approach:** By using survey methodology, the Department of Human Ecology was able to compile responses from 8,327 students via an online survey administered in the fall of 2016. Data was compiled and sorted into SPSS. Student interns recoded all open-ended ordinal data into numerical values, and assisted in creating a food security scale based responses on six screening questions. The food security scale is organized into four different levels: 1) high food security, 2) marginal food security, 3) low food security, 4) very low food security.

Outcomes/Results: Previous studies at CUNY, Wisconsin HOPE Lab, and the California State University system have reported lower GPA's from those of lower food security. To test the correlation of these two variables, GPA was taken from students' academic profiles and cross-tabulated with the four level food security scale. Our results showed that these two factors are significantly correlated with one another- the less food security a student has, the more likely they are to have a lower GPA. In addition, results showed that the higher parental degree achieved (graduate, bachelor's, some college, high school, or less) has a significant effect on food security, with higher degrees indicating higher food security.

**Evaluation/Conclusion:** The findings presented here indicate that food insecurity is a problem for a significant number of Rutgers students. By raising more awareness and combining programs such as the Rutgers Food Pantry, CAPS, Rutgers Against Hunger, and Student Affairs, a more comprehensive approach can reduce food insecurity on campus, and thus improve students' quality of life on the Rutgers-New Brunswick campus.

Title: CVS Vaccination Project

Name: Harshvir Kaur

**Preceptors:** Zohrain Hassam, Registered Pharmacist (RPh)

**Agency:** CVS/Pharmacy, North Brunswick, NJ

**Purpose:** To inform pharmacy patients about the importance of immunization and to increase the number of patients who have received vaccinations.

**Significance:** The Centers for Disease Control and Prevention, CDC, report that many diseases have been eradicated due to vaccinating against them; eg: polio and diphtheria. It is crucial to get vaccinated because if vaccination gets taken away, the protection that is given by the vaccinations will be taken away as well. Which in return will cause a disease to spread from person to person and that is not beneficial to the overall health of a human. CVS Pharmacy and other chain pharmacies allow patients easier access to vaccines. It allows walk-in, shorter wait time, and full insurance coverages by majority of insurances. However, despite many recommendations of getting vaccinated, vaccination coverage of U.S. adults is low. According to CDC less than 50% of the population gets vaccinated. Hence, there is need for improvement in vaccination rates among U.S. adults.

**Method/Approach:** By using a pharmacy software called RxConnect, pharmacy patients who have not received their recommended vaccinations or were due for any type of vaccinations, were identified. This data can be viewed by any CVS Pharmacy employee from any CVS Pharmacy location. Patients were then contacted via a telephone call to aware them of their vaccination status. Patients then came into the pharmacy to either receive their vaccination and/or fill their prescriptions. If a patient came to fill their prescription and they were not aware of any vaccination that they needed based on their age and medical history, they were recommended to receive the proper vaccinations. If patient gave approval the pharmacist administered the vaccination(s). Patients that denied could not be forced. All vaccinations administered was updated into the RxConnect software.

**Outcomes/Results:** Of the complete sample size cohort (n=800), only (n=583) patients received vaccination, of which 56% were females and 44% males. Of those (n=583) 40% were the age of 60+ who received the Shingles vaccine. Of those (n=583) 21% received the TDAP vaccine. The remaining 39% received Influenza vaccine.

**Evaluation/Conclusion:** Getting vaccinated is important because it prevents illnesses that can potentially cause havoc to the human body. From the end of January to the end of April, a total of 583 patients protected themselves via vaccination. CVS Pharmacy will continue to provide various vaccinations all year round, allowing easier access to the vaccinations and increasing vaccination coverage among adults.

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**Title:** Patient Satisfaction Improvement Methods

Name: Manjyot Kaur

**Preceptors:** Yaniris Garcia, Patient Advocate

**Agency:** Trinitas Regional Medical Center, Elizabeth, NJ

**Purpose:** To improve patient satisfaction by resolving complaints and educating staff to be more responsive and communicative when addressing patient needs to avoid future complaints.

**Significance:** According to the Institute for Healthcare Improvement, the ultimate goal of health care is to provide value-based care, which heavily relies on the quality of care and patient experience. Since hospitals must follow a pay-for-performance model, patient satisfaction and customer service surveys are the quickest way to gauge how a hospital is performing. Trinitas Regional Medical Center (TRMC) utilizes the National Research Corporation (NRC) to administer the Health Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey to all patients. It is the Patient Advocate's job to monitor these scores, understand the discrepancies, and find new ways to continuously improve them. Since communication is at the heart of the survey questions and most patient grievances, a useful strategy is to re-educate staff on effective customer service and communication strategies that may be overlooked during patient/family interactions.

**Method/Approach:** In order to gauge the effectiveness of these educational materials, the HCAHPS scores were monitored from January to March and compared to the prior quarter's scores. At the end of March, communication with nurses had increased to 76.2, communication about meds improved to 60.8 and communication with doctors was 80.8. Responsiveness of hospital staff also improved to 62.9. On a monthly basis, Customer Service Newsletters are distributed to the staff highlighting effective customer service practices and also posted in the TRMC World magazine. On a weekly basis, short customer service blurbs are posted in the "Here and Now" magazine. The improvement of the quality scores can be contributed to the educational materials distributed as they highlight best practices.

**Outcomes/Results:** The quality scores for communication with nurses were 77.6, 73.5, and 85.7 $\mu$  for the months of January, February, and March respectively. The scores for communication about meds were 56.9 $\mu$  for January, 57.6 for February, and 82.1 $\mu$  for March. The scores for communication with doctors were 81.5, 80.9, and 78.6 $\mu$  respectively for the months of January, February, and March. The responsiveness of the hospital staff scores were 62.6 in January, 61.9 in February, and 65.9 $\mu$  in March.

**Evaluation/Conclusion:** Over the past three months, there has been an increase in HCAHPS scores for communication with nurses, communication about meds, and responsiveness of staff; however, there has been a decrease for communication with doctors. The limitation of these scores is that the n-size for certain dimensions was sometimes below 30. By the increase in scores, it's evident that the consistent distribution of educational materials is useful in ensuring hospital staff provides the best possible care.

Title: Assessing Oral Health & Hygiene Behaviors to Lower Periodontal Disease Prevalence

Name: Ambika Kumaran

**Preceptors:** Francis H. Barchi, PhD

**Agency:** Edward J. Bloustein School of Planning and Public Policy Public Health Honors

Research Program

**Purpose:** To explore the association between oral hygiene and health behaviors to assess periodontal disease risk factors of undergraduate students at Rutgers University in New Brunswick, New Jersey.

**Significance:** The mouth is the mirror to the body in which oral health is a major factor of overall wellness. Periodontal disease has become the number one global burden for oral diseases, with approximately 47% of US adults above the age of 30 are living with some form (World Health Organization, 2015). I'm effort to lower Periodontal Disease prevalence, The American Dental Association has defined a set 10 oral hygiene practices. The most critical time frame to ensure healthy smile is eighteen to twenty-five, as individuals are at a greater risk of exposure such as smoking, alcohol, and stress. An emerging, but limited area of research to address undergraduate behaviors and attitudes towards oral hygiene may better assess strategies to prevent Periodontal disease.

**Method/Approach:** Undergraduate students from Rutgers University in New Brunswick and Piscataway area served as the population surveyed. The survey questions were constructed to gather information on the oral health and hygiene practice of patients and their attitudes. Using a convenience sample, all surveys were distributed online through various undergraduate listservs. The survey contained 19 questions to which students were only able to submit once via an email link. The data was collected over an eight-week period and analyzed using Qualtrics. Surveys were confidentially discarded after data was recoded to protect student privacy.

**Outcomes/Results:** A total of 270 undergraduate student surveys were collected from the study population. A summary of the results was analyzed using descriptive statistics to determine the distribution of responses. Approximately 70% identified as female while 30% identified as male. There were statistically significant differences between gender with regards to frequency of flossing, visits to the dentist and tooth brush hygiene practices. In comparison to ADA's 10 standards of oral health, majority of undergraduate students surveyed met 7 out of 10 standards. Overall, the study was successfully able to identify the periodontal disease risk factors in Rutgers undergraduates.

**Evaluation/Conclusion:** The information analyzed in this preliminary study is a part of my senior thesis which will be shared to develop a stronger education initiative in college campuses on oral health. Further investigation may reveal the access students have to dental insurance and dental products on campus. One future goal will be to encourage health centers on campus increase availability of dental care resources on campus for undergraduate students.

**Title:** Comparing Recovery Time in Common Injuries

Name: Madison Lake

**Preceptors:** Direct Supervisor: Jason Eliowitz, PT, DPT

**Agency:** Twinboro Physical Therapy of Martinsville

**Purpose:** To analyze patient chart information to determine the success rate of patient recovery by injury, and compare the length of recovery for each injury.

**Significance:** My project analyzes the success rate of Physical Therapy, a newer but reliable and fast growing solution to injuries today. A collaboration of exercises, workout routines, and direct massage work the therapists provide can greatly improve the patient's quality of life and ability to perform ADLs, sometimes without even needing surgery. As a newer concept to most of the patients, it is imperative these patients follow all of the therapist's instructions by continuing to perform exercises outside of the clinic.

**Method/Approach:** The sample size for my project is 50 patients. I will be looking at five body parts: the shoulder, knee, back, ankle, and lumbar & thoracic spinal area. I will choose ten patients per body part. As a part of the "Initial Evaluation" the patient fills out forms that ask about any limitations due to the injury, and describes their pain level/location. There are specific forms for each region of the body: quick DASH for upper body injuries, lower extremity functional scale, a neck index, and a back index. The patient and therapist also agree on realistic functional goals for the patient to accomplish. After four to six weeks, the patient fills out the same forms in order to measure their progress. While some patients may be completely healed after four weeks, others take longer. The reevaluation process is completed every few weeks until the patient is fully healed. My project will determine the percentage of patients who were able to meet their functional goals, and will indicate how many weeks the recovery took, as well as which injuries see the highest success rate from PT.

**Outcomes/Results:** Shoulder injuries were found to be the most successful recovery rate--every patient completed their goals. Of the ten shoulder injuries studied, four cases were post-surgical. This could potentially put these patients at an advantage, as their recovery process has technically begun before beginning PT. However, five cases of ankle injuries were also post-surgical, and ankle injuries saw the same success rate as knee injuries with just two post-surgical cases. Lumbar and thoracic spinal injuries had the least successful recovery rate, and also only had one post-surgical case. As for recovery time, patients with back injuries recovered the fastest, as 40% of patients were healed after just six weeks of treatment. In comparison, 70% of patients with knee injuries took eight to twelve weeks to recover; proving knee injuries to have the slowest healing time studied.

**Evaluation/Conclusion:** In attempt to truly test how successful PT treatment is, I made sure to cover a variety of injuries throughout the entire body. Some injuries I studied include: impingement syndrome (shoulder), incomplete rotator cuff tear, patellar tendinitis, sprain of MCL, radiculopathy, spondylolisthesis, strain of achilles tendon, sprain of calcaneofibular ligament, and low back pain; just to name a few from each body part analyzed. Even with such diversity, each body part proved to have a high success rate of recovery: 100% for patients with shoulder injuries; 80% for knee injury patients; 60% for patients with lumbar & thoracic injuries; 80% for ankle injury patients and 70% for patients with back injuries saw a full recovery.

**Title:** Service Excellence Refresher Plan

Name: Taylor Lamia

**Preceptors:** Ruth Bash, Vice President and Chief Culture Officer

**Agency:** Children's Specialized Hospital

**Purpose:** To create an effective training method to refresh all employees, at 13 hospital sites across New Jersey, on the Children's Specialized Hospital customer service model.

**Significance:** Studies show that "patients who are fully informed and feel connected to their caregivers are often less anxious than those disengaged" (Guler 17). Children's Specialized Hospital's Service Excellence Standards were created through a collaboration of input from all employees to provide a framework to live by and strive to achieve every day during their interactions with each other, patients and families. Initial implementation and training of the Service Excellence Standards was introduced 2.5 years ago. The goal for the refresher plan is to keep Service Excellence top of mind for each employee during their everyday responsibilities in order for all patients to achieve an exceptional patient experience.

Method/Approach: The Service Excellence Refresher video was accomplished through the collaboration of many CSH employees across all hospital sites in New Jersey. Initial interviews were conducted with each of the Senior Leaders to discuss effective training methods to fit the culture of Children's Specialized Hospital. The feedback was analyzed after the interviews were complete. Unanimously, the group decided on a short video format for the Service Excellence refresher. Five CSH employees who exemplify the standards extraordinarily in their daily responsibilities were selected and invited to participate in the video. The intern scheduled video interview times with selected employees and traveled to their corresponding sites to collect footage. The intern asked a series five questions to guide responses. After footage collection, the intern used iMovie to compile, edit and publish the Service Excellence video. The final video was piloted at a Senior Leadership meeting. Each Senior Leader completed a three-question survey to provide initial feedback on the effectiveness of the refresher plan.

**Outcomes:** The Service Excellence Refresher video was debuted on April 19<sup>®</sup>, 2017 at a Senior Leadership Meeting. After viewing the video, nine Senior Leaders completed a three-question survey. The results showed that 7 people strongly agree the video was impactful, 5 strongly agree the video reinforces the Service Excellence Standards effectively and 9 strongly agree they clearly understand the message the video portrays in living the Service Excellence Standards. All other responses were placed in the agree category.

**Conclusion:** The survey results provide an initial indication of the potential success the video will have on increasing Service Excellence awareness among CSH employees. The Service Excellence Refresher video will be shown through a variety of outlets to reach all CSH employees. The video will be posted on the organization's Intranet, shown at department meetings, quarterly Leadership Learning Retreat (LLR) meetings, the Service Excellence training orientation, as well as in any other events the hospital sees fit.

**Title:** Summer Camp Marketing Methods Assessment

Name: Sarah Lewis

**Preceptors:** Barry Smith, Executive Director

**Agency:** Youth Empowerment Services, Location

**Purpose:** To compare the success of three different fundraising strategies for Oasis Summer Day Camp in terms of dollars earned.

**Significance:** This project raises funds necessary for executing all proposed activities at Oasis Summer Camp. This includes trips to indoor and outdoor amusement parks, baseball games, Jersey Shore boardwalks and arcades, and a local pool. Breakfast, lunch and nutritious snacks are provided every day. On trip days, dinner is provided as well. Equipment, such as a laptop, speaker, t-shirts, sports balls and crafts will need to be donated or sponsored. This grassroots non-profit receives many bi-annual grants for a large part of the operational budget, so new donors must be sought every year. The executive director relies upon his personal network and past contacts for donations. New methods of fundraising are needed. In this project, an intern will seek to create new partnerships and solicit in-kind donations.

Method/Approach: Three revenue streams are being utilized in different ways. One method is applying for small grants. Small grants will be defined, for this purpose as those under \$2,000. All relevant tax, statistical and operational information have all been saved to a word document to reference each time a grant inquiry is made. The second is establishing new connections with law firms, accounting offices and other businesses in New Brunswick. A list of these in was created and carefully researched using Internet search engines identifying contact information as well as connections they may have to Youth Empowerment Services' mission. Letters and emails requesting donations were sent based on these lists and follow up calls were made. Third, a brochure was created for the camp, and distributed to volunteers, family friends, church members and other first person connections with the intention of receiving \$10 donations. The intention of smaller donations is to encourage donations among working class adults. Volunteers from a student organization at Rutgers University were utilized to circulate these brochures.

**Outcomes/Results:** Requesting small donations from first or seconds connections raised \$450. Soliciting donations from local businesses with little to no connection to YES raised \$0. Grants totaled \$800.

**Evaluation/Conclusion:** Effectiveness was evaluated in the order of dollar amount earned. By analyzing the outcomes above solely by dollar amount, the most successful avenue were grants. The next was small donations. The least successful was business solicitations. Limitations include the small window of time to create relationships with local businesses crucial for donations. Additionally, application deadlines restricted the availability of grants. Number of hours, amount of effort, resources used, money spent and skill required all act as variables in this equation but are not represented in the amount earned. Resources used have been recorded for future fundraising efforts.

Title: Dialysis Intake Process LEAN Assessment

Name: Justin Liu

**Preceptors:** Joseph McTernan, Sr. Director of Community & Clinical Services

**Agency:** Trinitas Regional Medical Center, Elizabeth NJ

**Purpose:** To conduct a LEAN quality improvement evaluation on the overall intake process of new dialysis patients.

**Significance:** Dialysis is an extremely tiring long-term treatment with a low survival rate. The survival rate of patients undergoing an average of 5-years of treatment is only 35.8%. Dialysis does not cure kidney disease, but merely prolongs the functionality of the kidneys, making early detection extremely important. Early detection will significantly improve an individual's survival rate and quality of life. A change of lifestyle contributes greatly to the well-being of someone with chronic kidney disease or similar illness. As a premier provider of renal services, Trinitas works to educate patients on the disease and treatment options. To best identify opportunities for growth, a thorough LEAN assessment to pinpoint the wasteful processes within their service is needed.

**Method/Approach:** Using real-time observations and quantitative data, a map demonstrating the overall flow of patients entering and leaving the hospital through measurements of the amount of time spent on average in certain key points of treatment was created. Measures evaluated the amount of time spent on the following points of services during the patient's experience: 1) initial submission of patient referral, 2) the social worker's review of referral, 3) the clinical review of referral, 4) the MD Director's review, 5) the time leading up to the patient's official acceptance. Collaborative efforts with the Director of Renal Services and MD Director will analyze the collected data before proposing possible areas of improvement.

**Outcomes/Results:** Observations of the expected time durations associated with key steps in the intake process of new dialysis patients indicated that a significant portion of time was spent on attaining the MD Director's approval of patients. Out of the other steps, which took on average about 30 minutes to 2 hours to complete, many of the employees within the Department noted that it could take anywhere up to 24 hours for the MD Director to review and approve any patient's application/referral into the treatment program. Although the various healthcare professionals work diligently to provide the best possible quality of care to patients, the waiting time for this step acts as a considerable speed bump.

**Evaluation/Conclusion:** The MD Director's review of every patient's application for entry into the Department's treatment is a vital step within the intake process, as the MD Director has the medical and professional background to make the decision most beneficial to both the patient and hospital. Greater effort and emphasis should be invested towards this crucial step seeing as the amount of time before treatment plays a significant role in any particular patient's acclimation to treatment and recovery. Through a leaner utilization of time and personnel resources, the overall experience of care should noticeably increase.

**Title:** The Next Generation of Philanthropists for UNICEF (United Nations

Children's Emergency Fund)

Name: Juliana Londono-Osorio

**Preceptors:** Bridget Harvey

**Agency:** United States Fund (USF) for UNICEF-Next Generation

**Purpose:** Help better target younger populations by analyzing donor trends, social media outlets, and basic knowledge of UNICEF.

**Significance:** As the leading organization advocating for children, UNICEF aims to defend the rights of children around the world and the USF for UNICEF works tirelessly to raise funds in support of such cause. Current donor trends lean towards older generations. This primary program evaluation aims to help the Next Generation team better understand donor tendencies of young adults aged 18-24 in addition to their most preferred social media outlet for the purpose of reaching a larger population of young donors.

**Method/Approach:** A total of 103 questionnaires were randomly distributed online (n=58) and through physical handouts (n=47). Questions related to knowledge of the organization, donation patterns, and demographics, most importantly age will be analyzed.

Outcomes/Results: Of the 103 responses, 24% correctly answered UNICEF's donor spending of 90 cents per dollar donated. Collectively, 51% of respondents answered correctly to knowledge questions relating to the organization. Although 44% of respondents indicated that they've never donated to a non-profit organization, and 38% donate less than \$20 a year, 89% marked "Children" and 68% "Human Rights" as causes they are most likely to donate to. Reasons given for never donating included lack of funds, time consuming process, no sufficient information about organizations, lack of transparency from organizations among other related and different reasons. A total of 61% of respondents ranked "Social media" as their number one source of information with Instagram (79%) and Facebook (76%) being the top two social media sites used. Respondents between the ages of 18-24, were mostly employed part-time (52%), and 63% were full-time students. Qualitative responses about favorite electronic money app were verbally given. A significant amount of students mentioned Venmo as the main app used to make online transactions.

**Evaluation/Conclusion:** Young adults' interests in donating for causes relating to children and human rights gives UNICEF-Next Generation a step ahead in a way that they won't need to use resources to attract their target population. They will, however, need to try to keep up with technology trends, including convenient and easy to use electronic cash apps that securely store information about the donor. Apps such as Venmo eliminate the need to input information every time and rarely involve more than 5 clicks after a subscriber has signed up.

Title: Piscataway Township Municipal Alliance Substance Abuse Task Force

Name: Jenny Louis- Charles

**Preceptors:** Direct Supervisors: Daniel Lamptey, Director of Finance and Maria Perez, Assistant

Treasurer Project Supervisor: Alexandra Lopez, Assistant Teaching Professor

**Agency:** Township of Piscataway Municipal Alliance

**Purpose:** To analyze alcohol abuse and misuse amongst teens in the Piscataway Township and develop prevention programs to ensure the goals of the Alliance are met.

**Significance:** Every few years the Piscataway Township Municipal Alliance focuses on a substance For this cycle, 2014 through 2019, reducing the problem of underage drinking is the priority. The Piscataway Township has a high incidence rate for underage drinking. According to the County Chart Book of 2013, 11.82% of substance abuse treatment admissions were juvenile (ages 12-17) alcohol related in 2010. The reasons why Piscataway has these rates include availability, access, and parental attitudes favorable towards use. The Piscataway Municipal Alliance uses needs assessments and data gathered to promote wellness among all age groups and to keep individuals and families healthy and safe.

**Method/Approach:** Coffee with a Cop is a nationwide initiative to bring community members and police officers together to discuss community issues. It was selected as an effective program because it addressed the root causes of underage drinking by targeting availability and access of alcohol. It used a survey, consisted of 5 questions, to reflect community factors, such as awareness of New Jersey and Piscataway laws on alcohol consumption. The main objective for this program was to raise awareness and provide information about underage drinking in the Township of Piscataway. It was also used to form a conversation where both community members and police officers can communicate community issues.

**Outcomes/Results:** Out of the 120 surveys that were distributed, 96 people responded fully to the questions on the survey. Twenty-five percent of the 96 were between the ages of 18 and 30, 13.5 % of the 96 were between the ages of 31 and 40, 21.9% of the 96 were between the ages of 41 and 50, and 39.6% of the 96 were 51 years or older. Thirty-one percent of the 96 felt that underage alcohol use was a serious problem in Piscataway Township, 13.5% of the 96 felt that underage alcohol use was not so serious, and 44.8% were unsure. Twenty-five percent of the 96 answered yes to being familiar with the Piscataway Social Host Law, 59.4% of the 96 answered no to the familiarity of the Piscataway Social Host Law, 10.4% of the 96 were unsure, and 1.2% of the 96 answered maybe.

**Evaluation/Conclusion:** More than half percent of the 96 people did not know of the Piscataway Social Host Law. Signs around the community, brochures mailed home, flyers and pamphlets distributed at community events, and community discussion groups will serve as effective strategies to raise awareness for the law. There are more people who are not aware of the issue of underage drinking in Piscataway and ongoing preventative measures will be taken to improve wellness among all age groups.

**Title:** Investigating Out-of-network healthcare costs in New Jersey

Name: Arun Luckoor

**Preceptors:** Direct Supervisor: Elizabeth Coulter, Intern Coordinator

Project Supervisor: Parimal Garg, Healthcare Policy

**Agency:** Phil Murphy for Governor

**Purpose:** To analyze and create a comprehensive analysis on 'out of network' healthcare costs in New Jersey, by studying rules, regulations, and legislature.

**Significance:** Many times, out-of-network coverage has been used inappropriately to expunge additional costs from everyday patients and families. Even if a person is insured, they can be paying more than what they should be paying due to extraneous situations that might be beyond what is usual, customary, and reasonable. A hospital, that might be in a patient's insurance network, could have doctors employed that are not in the same network. Therefore, many patients and families find themselves paying for a lot more than they thought they were actually paying for. According to a report, there are roughly 168,000 New Jerseyans that receive out-of-network medical bills each year. Out of these 168,000 people, only 29% of them were aware that the provider was in their network, while the other 71% had surprise additional costs. These problems can be addressed with proper implementation of regulations and standards that make the consumer aware of their provider's network status, as well as potential reimbursement policies.

**Method/Approach:** A review of current procedures and protocol was conducted by reviewing and studying legislation, articles, and papers. The main piece of legislation studied was State of New Jersey Senate, No. 1285, also known as the "Out-of-network Consumer Protection, Transparency, Cost Containment and Accountability Act", sponsored by Senator Joseph F. Vitale, Senator Loretta Weinberg, and Senator Nilsa Cruz-Perez.

**Outcomes/Results:** This study will demonstrate the overcharge that many patients and their families are facing from extraneous out-of-network costs being billed by many hospitals in New Jersey. The outcomes and results of this study will be a qualitative analysis on the treatment of this matter by hospitals, and insurance companies. Through research and analyzing NJ Senate, No. 1285, it is evident that out-of-network costs pose a big financial threat to many everyday families in New Jersey. It is also clear that for many New Jerseyans, a big worry at the hospital is making sure the doctor checking the patient out is innetwork. In times of pain and many times, sorrow, worrying about the doctor's network status may not be a priority, but can become a colossal financial problem after the immediate care.

**Evaluation/Conclusion:** This study can be evaluated by continuing to analyze the number of patients that receive out-of-network healthcare, and surveying the patients' knowledge of the healthcare provider's network status.

**Title:** Malnutrition in Seniors

Name: Patience Madu

**Preceptors:** Melanie Ford, Director

**Agency:** New Brunswick Senior Citizen Resource Center

**Purpose:** This project will educate seniors about detection, prevention of malnutrition and the importance of healthy eating habits to prolong independence.

**Significance:** Malnutrition is a serious senior health issue that can lead to various health conditions including weak immune system, which can increase the risk of infections, poor wound healing, muscle weakness, resulting in falls and fractures, and lack of appetite. Malnutrition is often caused by physical, social, and psychological problems. Socioeconomic status is a major indicator of nutritional status, because seniors may have trouble affording groceries, especially when they are taking expensive medication. Grief, loneliness and lack of mobility contribute to depression, which can lead to a loss of appetite. Health concerns and reduced social contact are additional factors that influence malnutrition in seniors as they age.

**Method/Approach:** An education program was conducted with the seniors, on prevention of malnutrition and how to detect malnutrition when it occurs. The sessions were presented as part of the Senior Center's lunch and learn activity during health and fitness day, when seniors were all gathered in the dining room. Sessions were based on nutritional values, healthy eating habits, causes of malnutrition, food trivia and long term benefits of healthy food choices. Prior to the start of the class, knowledge was tested on the topic by providing multiple choice and true/false trivia questions. Within this time period, eating habits were observed including how much of their food they were actually able to consume and what types of food was chosen for breakfast and lunch. Progress was observed to determine if eating habits changed at all.

**Outcomes/Results:** The health and fitness trivia questions indicated that 19 out 30 seniors who participated in the session understood and answered the questions correctly, while 11 of the seniors answered the questions incorrectly. At the end the of sessions, seniors were drinking more water and less coffee or fruit punch. More protein such as eggs for breakfast was chosen, and a beef, pork or fish along vegetables with lunch and variety of fruits for snacks were eaten more at lunch.

**Evaluation/Conclusion:** The seniors at the center are very much aware of the importance of a healthy diet however some failed to acknowledge their poor food choices. By the end of the sessions the seniors were fully informed about nutritional values and were ask to continue the process. Overall the sessions encouraged the seniors to choose a healthy diet by eating foods full of nutrients such as fresh fruits, and raw vegetables. They have maintained healthier food choices till present and progress will continue to be monitored.

**Title:** The Evaluation of Demographics for the Legion of Good Will's Early Childhood Care

and Learning Center

Name: Stephanie Malabag

**Preceptors:** Direct Supervisor: Sâmara Caruso, Educational Programs Coordinator

Project Supervisors: Sâmara Caruso, Educational Programs Coordinator

Sonia Navarro, Communications Coordinator

**Agency:** Legion of Good Will (LGW)

**Purpose:** To analyze the demographics of the Newark, NJ to meet the needs of residents through new programs or activities of the LGW Early Childhood Care and Learning Center.

**Significance:** The Legion of Good Will is on the verge of construction for their learning center in Newark, and an analysis of the demographics of Newark will significantly impact what specific programs and activities the LGW should have planned for the center. The learning center will serve infants, toddlers, and children ages 5 through 11 and act as a center for social assistance for the homeless and low-income families.

**Method/Approach:** An analysis of demographics using the US Census Bureau was initiated to assess the different types of groups living within Newark, NJ. Four different groups were assessed that are linked with one another: 1) SES, 2) low SES with families, 3) women of low SES with families and no husband present, 4) racial demographics, especially those who are White, Black, and of Latin American origin and their poverty status.

**Outcomes/Results:** Using the US Census Bureau online database, with the latest statistics provided from 2015, I found that out of a population of 277,140 people, 79,594 people (29.7%) remained below the poverty level, with 34,584 being men (26.6%) and 45,010 being women (32.5%). There were 15,910 (24.6%) Whites, 43,689 (32.7%) Blacks, and 29,538 (30.1%) Hispanic/Latinos who lived in Newark and were below the poverty line. Out of 58,420 families in Newark, there were 42.2% female householders, with no husband present, who were below the poverty line and 56.7% had related children under 5 years living with them. With regards to race, there were 39.6% White single female householders, 41.8% Black single female householders, and 46.3% Hispanic/Latino single female householders.

**Evaluation/Conclusion:** Majority of Newark's population that lived below the poverty line included White, Black, and Hispanic/Latino people. Also vulnerable below this poverty line were women, especially those who had children under 5 living in the household with no husband present. Since the LGW originates from Latin America and traditionally serves those of Latin American ancestry, the analysis helps us observe those who are possibly more comfortable in engaging an organization that is more familiar with Hispanic/Latino culture. These demographics will help the Legion of Good Will plan for future programs and activities in the upcoming Learning Center that will cater to everyone in need.

Title: Use of HOPE Alcohol Education Workshops by Greek Organizations Assessment

Name: Omika Mali

**Preceptors:** Direct Supervisor: Tanisha Riley, Drug and Alcohol Education Specialist

Project Supervisor: Francesca Maresca, HOPE Director

Agency: Rutgers Health Services: Health Outreach Promotion and Education (H.O.P.E.)

**Purpose:** To analyze if usage of HOPE Alcohol Education workshops by Greek organizations increased and liase with organizations still not using HOPE to encourage them to sign up for workshop

**Significance:** Four out of five college students drink alcohol, of those, half report binge drinking. The CDC states "Students in Greek organizations are 26% more likely to drink, therefore making the odds for addiction greater for those in Greek Life. HOPE is dedicated to educating all students, especially those in Greek life about addiction, and how to drink in moderation to prevent addiction. Therefore, the more Greek Organizations are educated by HOPE, the more students know how to avoid alcoholism.

**Method/Approach:** Greek organizations are mandated to provide one yearly alcohol or drug awareness workshop to their participants, but many Rutgers Greek Organizations contact outside organizations to conduct these education workshops instead of HOPE. HOPE has been working to increase their visibility, and therefore data was collected to see which Greek organizations utilized HOPE from 2015-2016, and 2016-2017, to determine if the number of Greek organizations utilizing HOPE has increased. Then data was analyzed to determine which Greek organizations have never used HOPE before, and which Greek organizations are overdue for their next alcohol awareness workshop. Organizations were contacted to use HOPE again, or to use HOPE for the first time to increase HOPE outreach to Greek life by 30%.

**Outcomes/Results:** Out of the 81 Greek Organizations at Rutgers University, 33 requested workshops in the academic year of 2015-2016. On the other hand, in the academic year of 2016-2017, 47 Greek Organizations requested alcohol awareness workshops. This shows there was a 17% increase in the amount of HOPE utilization from last year to this year. Moreover, of the Greek organizations at Rutgers, 23 are Multicultural Organizations, 35 are Inter-Fraternity Councils, and 23 are Panhellenic. Of those organizations, 12 MGCs, 17 IFCs, and 11 PHCs had never used HOPE before. With new HOPE outreach, 2 of the 12 MGCs, and 1 of 11 PHCs used HOPE for the first time, which is a 26% increase.

**Evaluation/Conclusion:** HOPE can evaluate if the outreach efforts have been effective by determining how many Greek organizations sign up for 2017 to 2018 and seeing if the percentage has increased since 2017. HOPE can conduct an annual survey for returning and new organizations to ask how they found HOPE services, would they continue to use HOPE, and what improvements could be made. Whichever methods Greek Organizations identify on the survey they used the most to learn about HOPE services, can be strengthened.

Title: Recreate the Policy and Procedure Manual for the Co-occurring License in Mental

Health and Drug Addiction

Name: Cassidy Markowski

Preceptors: Eli Santiago, Executive Director/Preceptor; Alexandra Lopez, Contractor/Preceptor

**Agency:** The Passion Care Center, Perth Amboy, New Jersey

**Purpose:** To recreate the existing policy and procedure manual by better aligning their manual with the NJ State Regulations, in preparation to receive their co-occurring license in mental health.

**Significance:** This revision will provide a clear guideline for each staff member to focus on following daily in their practice. N.J.A.C 10:161 state regulations are there to provide outcomes that will improve The Passion Care Center's quality of service. Attaining such an elevated standard of care will provide improvement in many aspects of care and services available at The Passion Care Center. Accreditation, staff training, and preparation for the state audit impacts quality of services, increases client satisfaction, and develops risk management efforts.

**Method/Approach:** Expansion on the existing policies and procedures manual was completed to manage different aspects of the facility from appointed staff, provision of care, patient rights, etc. The role of the internship students included the actual careful reading and review of each page of the NJ State Regulations, followed by a discussion with the Project Consultant. Once language was agreed upon, a new and revised policy and set of procedures was written and placed in a master document. The internship ends in May of 2017, the final approval will not be available until mid August.

Outcomes/Results: Overall, no quantitative data was obtained throughout the internship, however a change in policies and procedures will shape high quality service and provide positive outcomes for the Passion Care Center. As a rule, agencies must follow the guidelines carefully in an effort to ensure that all legal and ethical mandates are employed. As of April 20, 2017 the final policy was completed. However, the team continues to work diligently to edit and revise the 188 pages of policies. Once the manual is complete, all staff will be trained in every policy and procedure, leaving them fully prepared for the state to audit the facility and ultimately the measure will be that the facility will pass and receive its license. Due to the timing of this internship, we as the interns will not have the pleasure of seeing the final outcomes although are committed to following up with the preceptors. The facility is hoping to increase admissions by 20 percent once they achieve full licensure as per the Executive Director (based upon current referral sources).

**Evaluation/Conclusion:** Evaluation will be based on state accreditation to meet state standards as well as getting the approval for the mental health licensing. The goal will ultimately be for the agency as a whole to be a more structured facility as a result of the newly revised Policies and Procedure manual. The newly written policies and/or procedures helped elevate The Passion Care Centers strategic plan and set major goals that represent a positive outcome for the client and organization to both meet and provide.

**Title:** Patient Experience Survey Preference Assessment

Name: Maria Martinez

**Preceptors:** Dr. Steven Levin, Medical Director, Rose Jean-Baptiste, MPH, Program Manager,

Quality Assurance/Quality Improvement

**Agency:** Eric B. Chandler Health Center, New Brunswick, NJ

**Purpose:** To introduce a new electronic patient experience survey and assess whether or not the electronic process was preferable to patients versus the paper-based survey.

**Significance:** As the healthcare field shifts towards improving the quality of care that delivered to patients, health centers are implementing different processes to better engage patient and their care experience. One of the tools that's being utilized is the patient experience survey. The survey is use to help gauge patient satisfaction and helps improve overall care experience. This process is one of the core focus of the patient-centered medical home model. This project aims to assess whether patients who receive care at a federally qualified health center will find the completion of an electronic survey to be preferable over a paper-based survey.

**Method/Approach:** Every six months, the health center administers a paper-based experience survey. For this project, the paper survey was transferred to google doc and five additional questions were added to access patient preference between electronic and paper. For a six week period, each medical department gave out paper based surveys to patients following a doctor's visit. Those patients who did not fill out a paper based survey were then encouraged to complete an electronic one. A total of 500 patients were approached to fill out the survey, 343 agreed to complete it. The survey tools evaluated: access to care, waiting/wait time, care from providers, overall experience, and demographic questions. The data collected was entered into an Excel spreadsheet where the data was stratified and analyzed.

**Outcomes/Results:** Of 343 surveys collected, 210 were paper-based, and 133 were electronic. Of those, 63.6% were females, 26.5% males, and 9.9% were unanswered. Over half (53.1%) of the responders were Hispanic or Latino. The majority (60%) of the patients surveyed were between the ages of 20-59 with a third of the population not completing high school. In regards to the patient's survey preference, 39% prefered an electronic version, compared to 46% of patients who preferred a paper-based survey, and 15% left the survey preference question blank.

**Evaluation/Conclusion:** Several significant barriers were identified during the implementation of the electronic survey such as patients computer literacy, reading literacy, and difficulty of using the iPad. Some patients requested help while completing the electronic survey due to being illiterate. The older population expressed frustration as they did not know how to use the ipads, and others shared their opinion about their discomfort filling out the survey. Thus, a process evaluation should be implemented to overcome barriers, such as assigning an individual to help and assist patients to complete the

**Title:** Health Promotion in the 21st Century: Introducing food-insecure urban residents to

farmers markets and community gardens through digital media

Name: Mary Martinez

**Preceptors:** Lauren Errickson, Senior Program Coordinator

**Agency:** New Brunswick Community Farmers Market

**Purpose:** To increase awareness of the purpose and positive health benefits associated with farmers markets among New Brunswick residents through the creation of educational food related videos

**Significance:** Promotion of farmers markets and community gardens is growing in importance because of its furtherance of community wide fruit and vegetable consumption. Public health implications of urban agriculture extend into a favorable outlook in the field of economics, as the average gardener can produce approximately \$240 worth of food for no more than an outlay of \$9 (2000). However, many New Brunswick residents are unaware of the purpose, function, and locations of local farmers markets and community gardens. Technology in the 21st century allows for broader educational efforts to increase community members' familiarity with, and use of, available public health resources such as farmers markets and community gardens.

**Method/Approach:** To effectively promote the New Brunswick Community Farmers Market (NBCFM) and its associated benefits, a series of short videos (including an introduction to the market, overview of community gardens, and two Spanish-inspired recipe videos) was developed. Post surveys, with specific questions corresponding to each video theme, were created to measure the effectiveness of the videos by evaluating the likelihood of health and nutrition-related behavior change relevant to the farmers market, food acquisition and preparation, and community gardening. Post surveys will be compared to previously collected data, including NBCFM attendees, sales, and numbers of community gardeners to monitor progress. This research was approved by the Rutgers University Institutional Review Board.

**Outcomes/Results:** Data collection began on April 20, 2017, and is ongoing. At the time of this publication, there were 103 total video views with 32 accompanying survey submissions. Analyzing survey submission, 40.6% came from the NBCFM introduction video, 15.6% accrued from the educational community garden video, and 40.6% were from the recipe videos. Survey results indicate not many knew about the Market but are likely to visit the Market this year after watching the video. All the community garden surveys demonstrated that each person grasped a new concept after viewing the video. Considering the two recipe videos, survey responses expressed the public's desire to purchase additional amounts of fruits and vegetables after viewing the video.

**Evaluation/Conclusion:** Data will continue to be collected until the end of the 2017 New Brunswick Farmers Market season, which is scheduled to conclude October 31st, 2017. Data collected thus far is preliminary and should not be construed as final.

Title: HIV Knowledge and Awareness

Name: Vanessa Martinez

**Preceptors:** Deloris Dockrey, Clinic Director

**Agency:** Hyacinth AIDS Foundation

**Purpose:** To assess HIV knowledge and awareness among the residents living in Kearny, East Newark, and Harrison, NJ in order to understand what Hyacinth AIDS Foundation can improve on to reach out to individuals among the Hispanic population in these areas.

**Significance:** The Hispanic population in the U.S. carries a disproportionate burden of HIV and in spite of the high prevalence of HIV, many Hispanics remain untested for HIV. In 2011, a national survey was conducted by the Kaiser Family Foundation where 44% of Hispanic/Latino respondents reported never being tested for HIV. About 22% of Hispanics living with HIV remain undiagnosed because they have not been tested and when they are tested for HIV, they are tested late: 48% are tested for HIV within 3 years of an AIDS-defining diagnosis. In addition, there is a stigma towards HIV testing and fear of having a positive result. Furthermore, understanding what the knowledge and awareness of the Hispanics/Latinos have helps in improving what Hyacinth AIDS Foundation can do to reach out to this population.

**Method:** A preliminary assessment was created on Google Forum, specifically for the residents living in Kearny, East Newark, and Harrison, NJ. Then, for one week, it was distributed to the residents through social media and emails, from an address book. The questions gathered the background information and HIV knowledge of each individual. Some of the questions included: What is your ethnicity? and How is HIV passed from one person to another? Google Forum was used because it was straightforward and simple to distribute. Some limitations to this approach would be not reaching residents that have little to no social media access, having the language as a barrier, and having a small representation of each area.

**Outcomes:** Based on the method used, there was a total of 53 responses from the assessment. Results included: 90.6% of the participants did not know about Hyacinth, and 75.5% are Hispanic/Latino. For the question, "Have you been tested for HIV?", 43.4% responded 'No", 49.1% responded 'Yes", and 7.5% responded 'I don't know'. In regards to the same question for the responses of 'No' and 'I don't know', 63% would not mind getting tested for HIV and 77.8% did not know where to get a free HIV test. Out of the 53 participants responding to how HIV was transmitted: 94.3% responded 'Blood', 77.4 % responded 'Semen' and 'Vaginal Fluids', and 49.1% responded 'Breast Milk'.

**Evaluation:** The data collected shows that the majority of the participants have some degree of knowledge on HIV and are conscientious about testing for HIV without having fear become a major obstacle. Based on the high percentage of individuals not knowing about Hyacinth AIDS Foundation, a suggestion for the organization would be to improve on how they promote their services to the Hispanic/Latino population.

**Title:** Evaluating team communication to improve efficiency in Zika material delivery.

Name: Kaitlyn Mazzilli

**Preceptors:** Shereen Semple, MS

**Agency:** The New Jersey Department of Health

**Purpose:** To identify communication barriers for the Zika Communications Team.

**Significance:** The communication of the Zika Communications Team needed to increase efficiency in order to successfully collaborate and provide outreach to promote Zika awareness. A central repository for documents (Sharepoint) was underutilized resulting in duplicate materials posted by different divisions of NJDOH. Establishing what barriers exist in communication will help the Zika Communications Team improve their efficiency.

**Method/Approach:** I created a survey of 11 questions that addressed five different potential barriers for communication and sent it out by email to the Zika Communications Team. After three reminders, data were exported to a spreadsheet. The categories that the survey covered were team relationships, work ethic within each division, convenience of meeting time and location, understanding the purpose of the team, and usability of the Sharepoint document collaboration site.

**Outcomes/Results:** The survey successfully identified gaps in teamwork. The response rate for the survey was 72% with 13 out of 18 people submitting the survey. The statement that the most respondents disagreed on was "our team coordinates its decisions well". The question, "how would you rate the usability of the Sharepoint site?" received 6 responses for "somewhat difficult". In the comments section, it was mentioned that some people did not know how to access to the Sharepoint site.

**Evaluation/Conclusion:** These data suggest that usability of Sharepoint and team relationships are the categories that need improvement within the group. A tutorial on how to access the Sharepoint site was created. Some limitations of the study include a small sample size and short survey. This survey identified the gaps in communication that were preventing the group from being as successful as possible in working together to help New Jerseyans understand Zika. In order to understand if these barriers have been addressed, a follow up survey will be administered.

**Title:** Safer Sex Outreach Initiative

Name: Sydni McCauley

Preceptors: Francesca Maresca, PhD, CHES, Director of H.O.P.E

**Agency:** Rutgers Health Services: Health Outreach Promotion and Education (H.O.P.E.)

**Purpose:** To assess current knowledge and attitudes related to safer sex practices within the student population of Rutgers University.

**Significance:** Unsafe sexual practices on college campuses present a significant public health issue for college students, potentially leading to sexually transmitted infections and/or unintentional pregnancy. According to national aggregate data from the Spring 2016 National College Health Assessment (n=80,139), undergraduate students reported being diagnosed or treated by a professional for chlamydia at 1.4%, genital herpes at 0.7%, genital warts/HPV at 0.4%, gonorrhea at 0.4%, or unintentional pregnancy at 1.3%, in the past 12 months. However, only 5.4% of respondents reported using a condom (male or female) or other protective barrier method for oral sex, 49.5% for vaginal intercourse, and 28.1% for anal intercourse either mostly or always.

**Method/Approach:** An outreach campaign through tabling in student centers, at Rutgers University, was organized to distribute condom starter packs and collect data on student knowledge during key times of the semester (i.e Valentine's Day and Spring Break). To assess student knowledge, a paper survey was created, which consisted of eight true/false questions for students to anonymously complete. The demographic that was targeted were undergraduate students.

**Outcomes/Results:** Of the 148 surveys completed, the average score of the eight question survey was 75% and the mode score was 6 questions answered correctly. The most commonly incorrect response was the belief that condoms are not the only method of birth control that also provides protection from sexually transmitted infections. The second most common incorrect response was that oil based lubricants were the best lubricants to use as opposed to water based lubricants. The data was analyzed using Microsoft Excel and the results were entered into a graph displaying the distribution of scores.

**Evaluation/Conclusion:** Due to the nature of the project, accurate measurement of condom use and safer sex practices is difficult. The principal limit to this study is the lack of a post-test and the sensitive nature of the subject. Given the responses to the surveys, a short, engaging video about safer sex and myths will be created as an intervention. The video will emphasize debunking myths and stigmas surrounding sex and highlighting information that respondents were most likely to get wrong. The link to the video will be distributed in the condom starter packs and posted on major social media platforms such as the Rutgers Student Health website, Instagram, Twitter, and Facebook. Further surveillance of safer sex knowledge and attitudes is recommended in efforts to keep Rutgers students properly informed, as well as keeping incidences of sexually transmitted infections and unintentional pregnancy low.

**Title:** Counseling, Testing and Data Assistance Plan

Name: Shaquana McGee

**Preceptors:** Prevention Manager Derrick Gibbs

**Agency:** Hyacinth Aids Foundation

**Purpose:** Conduct and collect information between the client (who is being tested for HIV) and the counselor (who is doing the testing) during the testing session about the client's sexual risk behavior and ways they can lower their risk.

**Significance:** Hyacinth Foundation provides direct services to more than 15,000 people affected by HIV/AIDS in New Jersey. This information is vital because it assists with decreasing the epidemic of HIV outbreaks in the city of Trenton. The target population is GBM (gay bisexual males) AAW (African American woman) and other high risk populations. Hyacinth serves a diverse clientele throughout New Jersey. In the last fiscal year, 56% of the clients were male, 44% were female, 81% were minorities, and 32% were Hispanic. 62% identified themselves as heterosexual. There is a disparity of individuals not getting tested who become afraid to know their status and even are uneducated to learn how to protect themselves. A lot of individuals find out about Hyacinth through word of mouth or events that are held in the city.

**Method/Approach:** In a testing setting, the first step is to make the client feel comfortable before you begin asking questions. Next step would be to ask the client why are they getting tested? Also it is best to assure the client that everything will be ok no matter the results of their test. Also explain the process of getting tested, for example signing the confidentiality form and last getting the test results.

**Outcomes/Results:** Hyacinth provides clients a safe and secure place to access the many services they offer. From the data that is collected, counselors hope to educate the client on ways they can lower their risk of contracting HIV. About 50 clients were counseled from March to April. The ultimate outcome of this project is to identify the risk factors and educate clients on ways they can diminish their risk. Many common factors identified during testing are, clients engage in a lot of risky behavior that increase their risk to contract HIV. For example, clients engaged in unprotected sexual intercourse with multiple partners, clients exchanged sex for money, and some admitted to sharing needles who were intravenous drug users (IDU).

**Evaluation/Conclusion:** This data is recorded and sent to the State of New Jersey and Rutgers Robert Wood Johnson Rapid HIV Support. It is important to record the HIV rapid test results so the state of New Jersey can do further demographics and see what populations are at risk and testing positive more frequently. Also New Jersey needs to keep surveillance to monitor the incidence and prevalence rates to determine if there increasing or decreasing. Also this data lets Hyacinth know the effectiveness of their services and testing procedures.

**Title:** The effectiveness of menstruation education in rural Uganda

Name: Kelsy McIntosh

**Preceptor:** Jean Semler, President

**Agency:** Change A Life Uganda

**Purpose:** To examine the menstrual health and anatomy curriculum at the St. Lawrence Primary School in Migyera, Uganda in search of ways to improve student's understanding and retention of the material.

**Significance:** Menstruation brings with it a negative stigma when discussed in rural areas. These stigmas are brought about by cultural values that frame the phenomenon as something dirty that is not to be talked about. Many young girls in these parts of the world are misinformed and ashamed of their periods, and for this reason it is vital to provide clear, coherent, and informative lessons regarding menstruation and anatomy to these students. At the St. Lawrence school in rural Migyera, Uganda, it has been found that even after participating in comprehensive lessons conducted in English regarding anatomy and menstruation, students were unable to recall important, straight-forward information. This project aims to examine what factors contribute to this phenomenon, and how this knowledge can be used to improve the curriculum at St. Lawrence.

**Method/Approach:** Research was conducted to collect information about quality of education and subjects covered within Uganda's national curriculum to explore what strengths and weaknesses are currently present. These data were then extrapolated onto the results of pre-post tests assessing students' knowledge about menstruation and anatomy to look for discrepancies in the knowledge they are supposed to have. A literature review was also conducted to find more effective methods of teaching this material. Discussions with GROW interns who will be on the ground in June of 2017 resulted in a collaborative effort to make constructive recommendations to the school's Headmaster.

**Outcomes/Results:** Visuals such as pictures, diagrams, and drawn-out scenarios are one of the most effective ways to disseminate puberty information to rural populations. There is also a bilingual component that is important to include in these teachings. Although lessons are normally taught strictly in English, it is vital in this subject matter to include information both in English and Luganda to avoid any barriers and to achieve complete understanding. It is recommended that the future GROW interns for the 2017 trip will create a sample book in both English and Luganda modeled after an Ethiopian puberty education resource.

**Evaluation/Conclusion:** The students will be given a pretest before seeing the book, as well as a posttest after the book has been distributed to examine information retention patterns compared to the previous year's findings. These results will be discussed with CALU and St. Lawrence staff in Migyera in order to incorporate the suggestions into future lesson plans. Staff feedbacks will be collected via a questionnaire about which teaching methods they feel are the most appropriate and effective.

**Addition Information & Sources** 

Title: Target Market Expansion

Name: Sara Medina

Preceptor: Joseph McTernan, DHSc, FACHE, Sr. Director of Community and Clinical

Services

Agency: Trinitas Regional Medical Center, Elizabeth NJ

**Purpose:** Increase the number of patients that use the basic life support transport system of Trinitas Regional Medical Center.

**Significance:** Trinitas Regional Medical Center is a non-for-profit hospital looking for ways to expand their services in their primary and secondary service areas in order to gain more revenue. Trinitas' emergency medical services do not use all of their vehicles and equipment. In order to increase profits, their services need to increase.

**Method/Approach:** Finances were reviewed for the past 4 years. Data on demographics of primary and secondary areas was collected, and was then organized in a spreadsheet for each town. The director and coordinator from Trinitas' emergency medical services provided insight on the process, the services they offer, and the areas/patients they serve the most. Information regarding other agency transport services that served the primary and secondary areas was acquired through online research; providing a list of all basic life support agencies with 911 contracts in New Jersey.

**Outcomes/Results:** After reviewing Trinitas' services and comparing finances throughout the past 4 years, we found that basic life support transport (BLS) had the most area for growth. Data concluded that nursing homes were the best target market to increase BLS services. Nursing homes found were then mapped and a business plan was made to see the possible gains or losses from the expansion of emergency medical services to nursing homes.

**Evaluation/Conclusion:** The five-year business plan estimated gains and losses for a likely, pessimistic, and optimistic outcome. The likely outcome projected a profit of \$289,282, the pessimistic outcome a loss of \$377,438 and the optimistic value a profit of \$458,909. The expansion of Trinitas' EMS in nursing homes has the potential to generate profit in Trinitas Regional Medical Center. The next step is to have the marketing team create materials to be distributed to selected nursing homes in primary and secondary areas, and find which facilities will be interested in signing a contract with Trinitas Regional Medical Center.

**Title:** Levels of Stress Among Sectors of the Populations

Name: Marya Mehdi

**Preceptors:** Debra Borie-Holtz

**Agency:** Rutgers, Bloustein School

**Purpose:** Identifying themes and patterns "stress" among 18-25 year olds in Indiana and the correlation to substance use

**Significance:** Stress impacts physical health, mental health, and emotional health. A wide variety of conditions, situations and pressures can cause stress to any one person at any given moment. Most of us have varying understandings of what truly is stress and how important it is. A few of us concentrate on what transpires, for example, breaking a bone or getting an advancement, while others think more about the occasion itself. To many people stress is just a figure of being under pressure.

**Method/Approach:** A random probability survey was conducted in Indiana between November and December 2017 to examine the level of substance use among 18-25 year olds. The first step in the analysis is to code an open-ended question that asked respondents about the greatest stress factor in their lives. As the data is coded, a bivariate analysis will be conducted to see if there is a relationship between specific kinds of stress and the use of substances such as tobacco, alcohol, and prescription and non-prescription drugs. Additionally, a chi square test of independence and a correlation test will be run to determine if there is a relationship between types of stresses and substance use.

**Outcomes/Results:** Of the sample size cohort (n=1145), 263 participants (23%) were stress about their finances, 189 participants (16.5%) were stressed about their work, 69 participants (6.0%) were stressed about family problems, 213 participants (18.6%) were stressed about school, 34 participants (3.0%) were stressed about relationships, 38 participants (3.3%) were stressed about their health, 6 participants (.5%) were stressed about their dependencies, 10 participants (.9%) were stressed about their future. 13 participants (1.1%) were stressed about politics, 37 participants (3.2%) were stressed about various reasons, 245 participants (21.4%) had multiple reasons to stress, and 13 participants (1.1%) were not stress about anything.

**Evaluation/Conclusion:** About 15 (1.3%) of the participants from the sample size cohort (n=1145), had no record of stress factors. Having an option to choose from a list would serve as effective strategies to (a) better results and complete results (b) participants would be able to quickly choose from options and would not have difficulties to not knowing what to write, which will result a better survey. Ongoing monitoring of stress survey compliance will be undertaken to ensure continued improvement in the future.

**Title:** Top Ten Apps to Help Pass the Time

Name: Danielle Menardy

**Preceptors:** Crystal Rodriguez, Clinical Practice Supervisor

**Agency:** Evelyn H. Lauder Breast Center - Memorial Sloan Kettering Cancer Center

**Purpose:** Identify the top ten smartphone applications in order to help the time pass for chemotherapy patients.

**Significance:** Chemotherapy tends to have lengthy wait times associated with the treatment because of the long registration processes, lag time associated with receiving laboratory results, room preparations, adequacy of nursing and pharmacy resources, and physical space constraints in relations to patient volumes. A study conducted on the Ambulatory Treatment Center (ATC) of the MD Anderson Cancer Center, revealed that the average wait time for chemotherapy is 72.7 minutes (Kallen 2012). During this time, patients often seek entertainment on their smartphones to help pass the time. According to the Pew Research Center, in 2017 88% of 30-49 year olds and 74% of 50-65+ year olds have smartphones. Pew Research Center also found that 82% of smartphone users 30-50+ use their phones to prevent boredom. The goal of this study was to improve quality of care by making suggestions to help pass the time.

**Method/Approach:** In order to help improve patient satisfaction, theoretical research was completed on the average chemotherapy wait time for patients at any cancer hospital. Then, the average chemotherapy wait times needed to be compared to the wait time at Memorial Sloan Kettering Cancer Center. Research was performed to identify the top applications to help pass the time. Once the top ten smartphone applications were identified, further research was done to find how much time on average people spent using each application.

**Outcomes/Results:** A poster was created for the lobby that displayed the "Top Ten Apps to Help Pass the Time". The top ten applications were (1) Words with Friends, (2) Netflix, (3) Candy Crush Saga, (4) Pigment, (5) Spotify, (6) Duolingo, (7) Aura: Mindfulness Daily, (8) Facebook, (9) Logo Quiz and (10) Solitaire.

**Evaluation/Conclusion:** Creating a highly visible poster of the top 10 smartphone apps to pass the time should help increase the quality of care Memorial Sloan Kettering Cancer Center provides for their patients.

Title: Incentive Pilot Program: Improving the Pregnancy Risk Assessment Monitoring

System's Response Rates in the State of Michigan

Name: Ambar Mendez

**Preceptor:** Project Supervisor: Vanessa Loyola, Research Coordinator

**Agency:** Bloustein Center for Survey Research

**Purpose:** To increase the Pregnancy Risk Assessment Monitoring System's responses rates in the State of Michigan through different methods of providing incentives.

**Significance:** The Pregnancy Risk Assessment Monitoring System (PRAMS) is an ongoing research project to learn more about the health of mothers and babies in different states. PRAMS is part of a national effort to reduce infant morbidity and mortality by monitoring live births and collecting useful data through surveys and phone interviews from recent mothers. This data are used to implement and evaluate health programs and policies for babies and mothers.

**Method/Approach:** In an efforts to improve the PRAMS response rates in the State of Michigan, there is a pilot incentive program being conducted. The pilot program focuses on improving the response rates in Michigan by offering different incentives to the participating mothers. There is a control group and an experimental group. The control group will receive a \$10 gift card to Walmart after completing the phone interview. The control group receives no incentive in the mail. The experiment group will receive a \$10 gift card to their choice of store: Walmart, Amazon or Family Dollar. Additionally, the experimental group will receive a silicone bib in the mail.

**Outcomes/Results:** The results indicate that there is a slight increase in the response rates of the experiment group. The experiment group has mailed back 186 mail surveys. Whereas, the control group has mailed back 164 mail surveys. Moreover, the experiment group has completed 80 phone interviews. The control group has only completed 59 phone interviews. This data was collected from the most recent Michigan batches.

**Evaluation/Conclusion:** The pilot program does have limitations that may compromise the results. Initially, the Michigan Department of Health and Human Services receives the mother's contact information through the birth certificates files provided by the Vital Records Office. Between the time the birth certificate is issued and the mother receives a PRAMS survey, this contact information may change and will cause bad addresses and disconnected phone numbers. This limits some mothers from receiving the mail questionnaire or being contacted for a phone interview. Although the results indicate that the pilot program is working, the results are not statistically significant. In order to increase the response rates, the pilot program may need to adjust the incentive options. For more meaningful results, only one group should be offered the \$10 Walmart gift card while the other group gets a \$10 visa card. This sets both groups apart and may make a statistical difference in the response rates.

Title: DIBELS Online Teacher Evaluation and Student Engagement Survey

Name: Mahnoor Mirza

Preceptors: Kathleen Richards, Senior Research Associate, Amplify Center for Early Reading

**Agency:** Amplify Education, Inc

**Purpose:** To evaluate student engagement and educator satisfaction for the formative Dynamic Indicators of Basic Early Literacy Skills (DIBELS) Online assessment administration through a teacher survey.

**Significance:** In the United States, 1 in 4 children mature without learning how to read. (*Literacy Statistics*, 2014) If a child has poor literacy by the end of first grade, there is a 90% chance that child will be a poor reader by grade four. (Boyer et al., 1991) DIBELS Online is a formative assessment that aims to to improve literacy by helping educators evaluate student progress in literacy subskills, identify students who are falling behind, and plan targeted instruction. The software builds upon the foundation of DIBELS (Good et al. 2002). Researchers from the Programme for International Student Assessment (PISA) state that student engagement has the greatest correlation with literacy progress. (Kirsch et al., 2003) Teacher involvement and approval also affect student progress. (Barron, 2008) Student engagement and educator satisfaction and trust are crucial to improving literacy rates through DIBELS Online administration.

**Method/Approach:** A student engagement and educator satisfaction survey was created using previous DIBELS educator surveys. This voluntary survey was emailed to educators that supported the middle of year assessment of DIBELS Online at four field testing schools. The survey was administered through Google Forms. Educators were asked 47 open ended and multiple choice questions. Survey questions addressed DIBELS Online administration, materials and training. The responses were collected and evaluated as a whole and by grade level of assessment. Technology issues, educator satisfaction and student engagement and attention were evaluated. Survey results were analyzed using Microsoft Excel.

**Outcomes/Results:** Of the 35 respondents, 15 educators (42.9 %) trusted the results to plan instruction. Technology issues affected 25 educators (71.4%). Of the 23 educators (65.7%) that did not think the assessment accurately represented student knowledge, 17.4% (n=4) stated this was because they did not see the results and 60.8% (n=14) stated this was because of inaccuracies by student behavior. All educators that assessed kindergarten students (n=9, 100%) thought the results would not be accurate. Most educators (n=23, 65.7%) said more than half of students were on task throughout the administration, however, in open-ended questions some (n=13, 37.1%) suggested students were not trying their best.

**Evaluation/Conclusion:** Educator satisfaction can be increased by (1) resolving technology issues, (2) providing administrators with the results of the assessment, and (3) administering the assessment in smaller groups. The resolution of technology issues and the personal attention received in smaller administration groups would likely increase student engagement, particularly for younger students which educators stated needed more help. A follow up survey should be conducted after the implementation of these changes in order to evaluate and improve DIBELS Online software administration.

Title: Effects of Adopting the Household Model on Nursing Home Residents with Dementia

Name: Carolina Mlynarczyk

**Preceptors:** Direct Supervisor: Lisa Slater, MSN, RN, Director of Professional Education Project

Supervisor: Linda Hermer, Ph.D., Senior Research Scientist and Managing Director of

Research

Agency: Leading Age Center for Applied Research; Francis E. Parker Memorial Homes

**Purpose:** To determine whether adopting the household (HH) model of person-centered care (PCC) reduces nursing home residents' idle time and boredom and improves their affect, engagement in activities, and enjoyment of their living environment.

**Significance:** The older population is rapidly growing and up to 46 % of now-middle-aged U.S. adults will need a nursing home. Brownie and Nancarrow (2013) suggested that PCC reduces dementia residents' idle time and boredom, and improves their affect, engagement in activities, and enjoyment of their living environment. Several researchers including Shields and Norton (2006) claim that the household model of PCC, in which a small group of residents live around an on-unit kitchen, dining area, and living room, and resident choice guides all NH operations, provides the greatest benefits for resident and staff. Qualitative studies vaguely support this notion, but no rigorous, quantitative studies have confirmed the improved psychosocial dynamics or identified the causes of these benefits.

**Method:** This is a cross-sectional study using data collected at the one-year follow-up time of an 18-month prospective cohort study of residents' depression and dementia, conducted in a HH model home and two traditional control facilities that had implemented PCC in line with national averages. At baseline, 27 residents at the HH facility were matched with residents at the two control facilities on dementia diagnosis, BIMS, depressive symptoms or Dx, PHQ-9, and to the extent possible, age, gender and race. An observational technique was employed in which residents' and staff's time use, engagement in task-related versus non-task-related social interactions, level of engagement, and affective state were coded at 5-minute intervals over an eight-hour observation period that includes two mealtimes, using instruments validated with nursing home residents. Care partners' degree of person-centered care was also measured, and the three facilities' implementation of PCC was assessed.

**Outcomes:** The HH facility implemented PCC to a greater extent than the other two facilities, which resembled typical adopters nationally. Observation results showed that HH residents spent less time idle and parked at wheelchair hubs, and more time in personal care with frontline staff. They spent more time in the dining area displaying positive affect and active engagement, and more time talking with staff members and eating. No benefits of the HH model were found in other parts of the environment.

**Conclusion:** The findings suggest modest but real benefits to implementing the HH model, particularly in dining. Traditional facilities may reap these benefits without exorbitant capital outlays by reconfiguring their dining areas and implementing PCC to a greater extent without renovating their entire building.

**Title:** Occupational Exposure to Bloodborne Pathogens and Needlesticks

Name: Natalie Montes

**Preceptors:** Patricia Jones, Area Director

**Agency:** Occupational Safety and Health Administration (OSHA)

**Purpose:** To bring awareness of occupational exposure to blood borne pathogens via needle sticks, and to improve training for new technological advancements to avoid needle sticks.

**Significance:** Each year there is an estimated 384,000 needle stick injuries amongst health care workers. The CDC estimates that between 62% and 88% of sharps injuries can be prevented (American Nurses Association). Along with needle stick injuries come risks of being exposed to blood borne pathogens (BBP), such as hepatitis B, hepatitis C, and human immunodeficiency virus (HIV). According to OSHA Standards, each work place that has employees that are at risk for needle sticks or exposure to BBP, the employer must have a written Exposure Control Plan (ECP). The plan must reflect changes in technology that eliminate or reduce exposure to BBP, document annually consideration and implementation of appropriate commercially available and effective safer medical devices designed to eliminate or minimize exposure, and solicit input from non-managerial employees responsible for direct patient care, who are potentially exposed to injuries from contaminated sharps, in the identification, evaluation, and selection of effective engineering and work practice controls and shall document the solicitation in the ECP.

**Method/Approach:** The OSHA Avenel Area Office covers only a few counties in the state of New Jersey. The counties are Hunterdon, Middlesex, Somerset, Union, Warren and only Richmond in New York. The intern attended complaint-based inspections at employers located in these counties with occupational exposure to BBP. The employers were then asked if they had a written ECP. The intern also collected data from OSHA Avenel Office Industrial Hygienists from complaint-based inspections with exposure to BBP conducted in 2016 and one inspection in 2017 not attended by the intern.

**Outcomes/Results:** Of the three inspections conducted during the course of the internship, none of the employers had a written ECP. From the data provided by the Industrial Hygienists from 2016 and the complaint-based inspection from 2017, of the four employers, only one had a written ECP.

**Evaluation/Conclusion:** In conclusion, of the seven employers used for this study, only one had a written ECP. This is dangerous because if an employee exposed to BBP does not know the proper protocol in case of a needle stick, an employee can suffer a lifetime of disease following the needle stick. Not only does the employee suffer, but the employer does as well. The employer can be imposed monetary fines for not having the required written ECP. Without a written ECP, this can also mean that the employees do not have proper training or knowledge of their exposure to BBP.

Title: Precision Medicine Molecular Tumor Board Performance Evaluation

Name: Alessa Z. Moore

**Preceptors:** Frances DiClemente, Research Analyst

**Agency:** Rutgers Cancer Institute of New Jersey

**Purpose:** To increase the overall performance efficiency of the Precision Medicine Oncology Molecular Tumor Board (PMO MTB).

**Significance:** Precision medicine is becoming the forefront of cancer treatment. One fascinating aspect of precision medicine is that DNA sequencing is conducted to identify gene abnormalities responsible for cancer cell growth. Because sequencing alone cannot establish alternative treatments, PMO MTB allows for the collaboration of high-level specialists in providing treatment alternatives based on the cancer genomics. Participants are given the opportunity to discuss these findings, and suggest alternative therapy options. By evaluating the patient's treatment history, tumor pathology and genomics, and available research, PMO is changing the conventional paradigm of cancer treatment.

**Method/Approach:** Observations on attendance (including weekly attendance and variations in attendance by season of the year), patient case load, and potential problem areas were made and related data were collected at weekly MTB meetings. Discussions were conducted with preceptor regarding MTB problem areas. These problem areas were categorized as related to process, technological issues, and attendance. Further analysis was conducted on whether the season of the year influenced attendance rates, as well as who was presenting at the meetings. Data were analyzed to determine which of these problem areas were potentially modifiable for the purpose of optimizing MTB performance.

**Outcomes/Results:** The analysis revealed that 76% of the identified problems were addressable. Of the remaining 24%, most were doctor-related issues and not controllable due to their schedules. Ensuring that the meetings start on time may alleviate some doctor-related issues. Efforts were focused on resolving issues related to process, technology, and attendance. Proper room setup, scheduling, and remote access were issues involved in prompt meeting start times. Some technology-related issues were observed, including audio issues. Attendance also varied according to the season of the year. Doctors and scientists, who make patient recommendations, are the largest group of individuals attending these meetings, where n=13 was the average number of doctors per meeting per season and n=17 was the average number of attendees per meeting per season. Over the last 4 years the number of people attending MTB has fluctuated. We also found that attendance increased after a break in the schedule, demonstrating that breaks are beneficial.

**Evaluation/Conclusion:** This analysis shows that most of the identified MTB-related problems are addressable, supporting performance and efficiency improvements. Process flow can be enhanced through proper room scheduling and ensuring presenters arrive on time and are prepared. Attendance numbers can be improved by reducing the number of tumor boards per month. Checking audio before each meeting may resolve some technology-related issues.

**Title:** Environmental Health & Safety and Hazard Prevention

Name: Monica Morano

Preceptors: Ian Pracher, MPH, Health and Safety Specialist III

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

**Purpose:** To assess how environmental health and safety trainings promote hazard recognition and awareness and thereby reduce injuries and illness in the workplace.

**Significance:** There were approximately 2.9 million nonfatal workplace injuries and illnesses and an annual total of 4,836 fatal workplace injuries reported by private industry employers in 2015 (BLS). Accidents involving chemicals, biological agents, and ionizing radiation are responsible for many hazardous material exposures each year leading to personal injuries and deaths (CDC). Training designed to be specific to the hazards faced in the workplace is a valuable preventative measure used to improve worker safety. An effectively managed worker safety and health program can be a determining factor in reducing work-related injuries and illnesses and their related costs (OSHA).

**Method/Approach:** Training sessions provided by REHS are designed to cater to the safety needs of university students and employees with the potential to be exposed to physical, chemical, biological, or radiological hazards, while also keeping the university in compliance with state and federal regulations. During these training sessions students and employees are instructed how to recognize hazards, prevent exposures, and if necessary how to respond to emergencies involving these hazardous materials. Any university student and or employees working with or around hazardous materials must attend an initial safety training that is refreshed annually. Training materials are continuously updated and altered by REHS in order to address new or recurring accident and incident trends identified by the department.

**Outcomes/Results:** Data on incidents that required emergency response by REHS, as well as the number and type of training sessions completed by REHS on all Rutgers University campuses was compiled for the 2016 calendar year. 6,528 students, staff, and faculty members attended 434 training sessions. A total of 1,785 accidents were reported with 349 of those accidents resulting in investigations conducted by REHS. 117 of the total accidents reported involved a chemical incident or spill. Using this information, REHS updated and focused their training programs to prevent similar future incidents. University accident data reports show an overall decrease in the incident rate from 2.41 per 100 employees in the year 2005 to 0.96 per 100 employees in 2016.

**Evaluation/Conclusion:** Yearly training administered by REHS has raised awareness of particular physical, chemical, biological, and radiological hazards in an attempt to create a culture of hazard prevention. Through the identification and investigation of new and recurring incidents and accident trends, student and staff training is altered to further prevent future exposures, injuries, and illness as shown by reduced incident rates.

Title: Mover Motives: How Moving Companies Engage with Move for Hunger

Name: Margaret Muller

**Preceptors:** Kara Sendell

**Agency:** Move for Hunger

**Purpose:** To identify the best method for food donations for Move for Hunger based on previous activity (i.e. food drive pick-up, moving drop-offs, monetary donations).

**Significance:** Nearly 50 million Americans, including one in five children, face hunger in the United States (Feeding America, 2014). To help fight hunger, Move for Hunger has spent the past eight years collecting more than 7 million pounds of food from people moving out to local food banks. However, over the past fiscal year, Move for Hunger's pounds collected has decreased by about 15%. With Move for Hunger's network extending beyond 700 moving companies, it is crucial for the organization to understand how they are engaging with their partners in order to bring in more pounds of food to food banks and pantries.

**Method/Approach:** Data was sorted by mover population. States like California and Texas have a large number of movers partnered with Move for Hunger, whereas states like Colorado and North Dakota have very few. Sample sizes ranged from small, medium, and large to better represent mover demographics. Largest population sample was from California (n=61), medium from New Jersey (n=29), smallest from Colorado (n=12). The following types of engagement were identified: Monetary Donations from moving companies, Food Donations from individual moves, and Event Food Donations from food drives. Totals were compared amongst individual states to find the most and least effective engagement opportunities.

**Outcomes/Results:** Moving companies, across the board, brought in the most donations via food drives. However, when taking a look at Colorado's individual moving company totals, most of their donations come from regular food donations. More focus should be placed on larger food drive events. In total, all three states have donated \$60,233.92, 143,929 pounds, and 369,219 event pounds. The state numbers were CA (n=61), \$26,123.00 donated (43% of total), 45,983.00 pounds donated (32% of total), 155,240.00 event pounds donated (42% of total). In NJ (n=29), \$21,993.92 donated (37% of total), 82,047.00 pounds donated (57% of total), 187,253.00 event pounds donated (51% of total). In CO (n=12), \$12,117.00 donated (20% of total), 15,262.00 pounds donated (11% of total), 26,726.00 event pounds donated (7% of total).

**Evaluation/Conclusion:** A paper promotion will be created and mailed to moving companies to promote and encourage engaging in more large-scale activities. After the promotion, an evaluation will be sent out to moving companies to see if they feel motivated to increase their engagement with Move for Hunger. In the future, evaluating the entire country could provide a more comprehensive assessment of how Move for Hunger engages with moving company partners.

**Title:** Homicides by Police Officers and Educational Interventions

Name: Erica Murphy

**Preceptors:** Sergeant Mitchell Tierney

**Agency:** New Jersey State Police, Sea Girt NJ

**Purpose:** To asses if gun violence homicides by police officers decreases with annual educational interventions.

**Significance:** Every day, 309 people in the United States are shot in murders, assaults, suicides and suicide attempts. Of those 309 people, 93 people unfortunately die due to gun violence. In just one year 33,880 people died from gun violence. Out of these statistics, 468 people are killed by police intervention. Statistic shows that with an increased gun violence education program, gun violence decreases. Specifically looking at Directed Police Patrols that was first tried in Kansas City, MO., in the 1990's police officers increased traffic enforcement in high crime areas which led to a 50% decrease in gunrelated crimes. By increasing patrols, this also decreased the amount of times officers had to draw their own weapons, and therefore decreased gun violence from State Troopers.

**Method/Approach:** In order for this project to be tested and proven that with gun safety and education trainings given annually, the amount of times state troopers draw and fire their weapons decreases there must be a tracking system. The tracking system will begin after the first firearm training is completed in that year. In an excel spreadsheet from that point on, the amount of times a weapon is drawn will be recorded. The amount of times a weapon is fired will also be recorded. Finally the amount of times a weapon is fired and someone is killed will be recorded. After each bureau does a full year of recordings on its state troopers. he amount of people that are killed by police intervention will then be reevaluated to see if it has gone down or increased.

**Outcomes/Results:** The outcomes of this project are expected to show a decrease in gun related violence and ultimately gun related deaths due to police intervention. If the outcomes show that there is in increase on gun related deaths due to police intervention, than annual and continual firearm education may not be a factor in lowering these statistics. The results will show that either education and proper enforcement will help lower the statistics or will have no impact. Overall if New Jersey can reduce the number of deaths by police interventions by 10% that would be 46 lives that would be saved.

**Evaluation/Conclusion:** There is no federal law mandating that every incident of police violence and or homicide by a police officer to be collated in one place. There is not one direct document or place where there is a tracking of the people that are killed and under the circumstances that they are killed. Tracking these incidents is not meant to blame police officer, but a way to evaluate how we as a country can lower the amount of people that die due to police homicides each year.

Title: The Passion Care Center Policies and Procedure Manual/ Mental Health License

Name: Azeezeh Musa

**Preceptors:** Executive Director/Preceptor Eli Santiago, Contractor/Preceptor Alexandra Lopez

**Agency:** The Passion Care Center

**Purpose:** To analyze and reconstruct the organizational policies and procedures for the provision of care at The Passion Care Center in order to obtain licensure and accreditation necessary to provide mental health care.

**Significance:** State regulations are there to provide outcomes that will improve The Passion Care Center's quality of service. Attaining accreditation will provide an elevated standard of care and thus will provide improvements in various aspects within the facility. This revision in policies and procedures will evaluate staff training as well as provide preparation for the state audit which impacts quality of services, increases client satisfaction, and develops risk management efforts. Adjustments made to the policies and procedures will give The Passion Care Center with the necessary tools to continue to provide the best services for their clients.

**Method/Approach:** Development of the policies and procedures manual was completed to manage different aspects of the facility from appointed staff, provision of care, patient rights, etc. The role of the internship students included the actual careful reading and review of each page of the NJ State Regulations, followed by a discussion with the Project Consultant. Once language was agreed upon, a new and revised policy and set of procedures was written and placed in a master document. Each policy was then reviewed and approved, page by page by The Passion Care Center's Executive Director and lead Contractor. This new manual will be presented to the State of NJ for approval and licensure of the facility to provide Mental Health Services.

**Outcomes/Results:** As a rule, agencies must follow the guidelines carefully in an effort to ensure that all legal and ethical mandates are employed. As of April 20, 2017 the final policy was completed. However, the team continues to work diligently to edit and revise the 188 pages of policies. Once the manual is complete, all staff will be trained in every policy and procedure. Once they are trained, they will be fully prepared for the state to audit the facility and ultimately the measure will be that the facility will pass and receive its license. Due to the timing of this internship, we as the interns will not have the pleasure of seeing the final outcomes although we are committed to following up with the preceptors. The facility is hoping to increase admissions by 20 percent once they achieve full licensure as per the Executive Director (based upon current referral sources).

**Evaluation/Conclusion:** Evaluation will be based on state accreditation to meet state standards as well as getting the approval for the mental health licensing. The goal will ultimately be for the agency as a whole to be a more fully functional and structured facility as a result of the newly revised Policies and Procedure manual. The newly written policies and/or procedures helped elevate The Passion Care Centers strategic plan and set major goals that represent a positive outcome for the client and organization to both meet and provide.

Title: Satisfaction Assessment of the Nutrition for a New You Program for Adults

Name: Shachi Nagda

Preceptors: Mariam Merced, Director; Yesenia Medina-Hernandez, Program Coordinator

**Agency:** Community Health Promotion Program at Robert Wood Johnson University Hospital

**Purpose:** To improve health literacy of adults in New Brunswick through the Nutrition for a New You program and to assess the impact of the program on participants through a satisfaction survey.

**Significance:** The Patient Protection and Affordable Care Act of 2010, Title V, defines health literacy as the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions (CDC, 2016). According to the U.S. Department of Health and Human Services, the primary barrier for people to access health information is Limited English Proficiency (LEP) and suggests that health information for people with LEP should be communicated in their primary language. Words and examples should be used to make information understandable. As of 2010, 37.4% of New Brunswick's population claims to have limited English proficiency (*Middlesex County, New Jersey: 2015 Hazard Mitigation Plan Update*). The U.S. Department of Health and Human Services states that low health literacy rates have been linked to poor health outcomes such as less frequent use of preventive services.

**Method:** Complex nutrition facts and scientific terms were simplified and presented through four different methods for easier understanding. Since majority of the participants' primary language was Spanish, an interpreter was present during all sessions. Next, visual aids, actions, and food demonstrations made the nutrition information more retainable. Surveys were distributed to assess satisfaction and comprehension of the program. Surveys were bilingual, group-administered, and adjusted to suit the literacy level of the participants. They consisted of two multiple-choice demographic questions, and three likert scale questions. Survey instructions were explained in English and Spanish, confidentiality of answers was maintained, and to avoid loss to follow-up, questionnaire was concise and incentive was given after completing the surveys.

**Results:** 50 completed surveys were collected at the termination of the program. 42 out of 50 people (84%) said that the information presented to them was easily understandable (5 out of 5 on the likert scale). 38 out of 50 people (76%) said they learned a lot of new information (5 out of 5 on the likert scale) and 43 out of 50 people (86%) said they would definitely attend more programs similar to this in the future (5 out of 5 on the likert scale).

**Evaluation:** Findings demonstrate that when complex health information is presented in simplified ways, people are able to easily comprehend it and thus, their health literacy, to some extent, is enhanced. Continued monitoring of health literacy levels must be maintained to assure understanding across wide populations.

**Title:** Developing Motivational Interviewing Scripts to Improve Patient Retention Rates

Name: Anne Nason

Preceptors: Chauntel Wright, MPH, CHES-Member Services Manager

**Agency:** The World Trade Center Health Program at Rutgers University

**Purpose:** To create scripts for all departments within the clinic that utilize motivational interviewing techniques in the effort to improve patient adherence and retention rates.

**Significance:** The World Trade Center Health Program is a federally funded program that provides medical monitoring and treatment services for emergency first responders and volunteers that helped after the terrorist attacks on September 11, 2001 at the World Trade Center. In order to provide patients with optimal care and health outcomes, it is critical that patent retention practices are regularly developed, implemented and re-evaluated. The Program's retention benchmark is 65%. Currently, the patient retention rate for the Rutgers clinic is 54%. The retention rate is defined as the number of patients who attend his/her first an annual monitoring exam within 6 months of original registration *or* return for an annual monitoring exam within 27 months of his/her last exam. Any patients outside either of these time periods are identified as the "Not Seen" population.

**Method/Approach:** The project will be conducted using patient scheduling data that was collected throughout the 2016 calendar year. From this data, it will be determined which specific population of patients may benefit most from the use of motivational interviewing during annual visits. Additionally, observations will be conducted to better understand the workflow of each aspect of the clinic. After observing employee/patient interactions and the procedures of a typical monitoring exam, a script will be written for each clinical department that includes guidelines for motivational interviewing techniques.

**Outcomes/Results:** Of the 1,186 visits conducted at the clinic during 2016, 228 of these patients (19.2%) were considered part of the "Not Seen" population. Of these 228 patients, 122 of them were considered "Visit 1 or Visit 2" (54%) and 106 of them were "Visit 3-Visit 10" (46%). Thus, deliverables of this project will include scripts that specifically cater to the V1/V2 population and for each of the employees in the various departments of the clinic.

**Evaluation/Conclusions:** Motivational Interviewing is a proven way to increase self-efficacy among patients and promote positive health outcomes (Linden 2010). The goal in using MI within the clinic is to have patients return for yearly monitoring exams. The project will be evaluated in the long term according to monthly data analysis reports and patient satisfaction surveys. The goal of the project is to enhance current retention initiatives in order to reach the 65% retention rate benchmark.

Citations: http://bit.ly/2nBmdVM

**Title:** Assisting in the Coordination of Land Development and Asset Management

Name: Andrew 'Max' Natanagara

**Preceptors:** Mark Cannuli, SVP of Development

**Agency:** Sharbell Development Corporation, One Washington Road, Robbinsville, NJ

**Purpose:** To assist the SVP of Development and the Director of Land Development in daily activities related to the land use approvals, management of performance guarantees and inspections, and escrow accounting.

**Significance:** This project will greatly assist Sharbell in managing several aspects of the approval process including permitting, demographic analysis and the ongoing management of performance guarantees and escrow accounts.

The performance guarantee aspect of this project directly assisted Sharbell Development by expanding the amount of accessible funds that the company may use to further existing projects and to begin new developments. Currently, a substantial amount of the company's assets and financing are tied up in performance bonds with municipal governments which are put in place to ensure that developers see projects to completion. I assisted in requesting inspections, rectifying outstanding items and creating and submitting performance guarantee reports, which is the process by which Sharbell gives updates on projects to the municipalities and requests reimbursement for the work that has been done.

**Method/Approach:** The performance guarantee aspect of the project will involve creating a more efficient procedure for Sharbell to track and manage various performance guarantees that were long outstanding and depriving the company of funds that they were entitled to recuperating. This project involved creating a more efficient bond tracking and reporting process using Microsoft Excel, within which I aim to make the formulas more clear and the reports more concise so as to be easily understandable by the government employees reviewing the reports.

**Outcomes/Results:** This performance guarantee aspect of the project will increase the frequency and efficiency of the release of performance guarantees and the return of company assets. Through this internship Sharbell achieved its goal to better manage and streamline what was once a tedious process.

**Evaluation/Conclusion:** By implementing the above procedures Sharbell was able to better manage the number of outstanding performance guarantees and increase the efficiency of its managing and reporting process. In a recent meeting with my Preceptor, I learned that Sharbell was successful in recuperating a significant amount of capital. While I cannot disclose the exact amount of the assets that Sharbell has committed to posting the required performance guarantees and/or bonds, it is a considerable amount that Sharbell can use towards satisfying new obligations associated with new housing and commercial development.

**Title:** Continuing Medical Education on Postpartum Hemorrhage and the Impact it has on

Health Outcomes for Learners

Name: Jennifer Ngandu

**Preceptors:** Dr. Charletta A. Ayers, MD, MPH and Dr. Gloria A. Bachmann, MD

**Agency:** Robert Wood Johnson Medical School

**Purpose:** To assess the efficacy of continuing medical education (CME) on the improvement of health outcomes, worldwide, using postpartum hemorrhage.

**Significance:** The Sustainable Development Goals of the United Nations, aim to put an end to global issues, such as the reduction of maternal mortality, for all nations. Goal number three aims at continuing with the progression of reducing maternal mortality (Sustainable development, 2017). According to the World Health Organization, 99% of all maternal deaths occur in low-income countries. One of the top three causes of maternal mortality, worldwide, is postpartum hemorrhage (Maternal Mortality, 2017). According to PubMed, in the United States, pregnancy-related deaths have a rate of 7 to 10 per 100,000 live births, with 8% of those deaths being a result of postpartum hemorrhage (Snelgrove J., 2017). On the continent of Africa, according to the African Journal of Primary Healthcare and Family Medicine, 33.9% of maternal mortalities are due to postpartum hemorrhage (African Journal of Primary Health Care & Family Medicine2017). According to the World Health Organization, globally, this condition accounts for 25% of all maternal deaths and 14,000,000 women suffer from PPH every year (Maternal Mortality, 2017). These statistics indicate a need for an intervention on educating women and healthcare providers on the risks of postpartum hemorrhage and addressing its significance worldwide.

**Method/Approach:** Powtoon is an enterprise that provides students with access to a cloud-based application to create animated presentations. An educational PowToon presentation was created about postpartum hemorrhage and its significance on a global scale, which will be presented to medical students in the near future as a follow up for this project and to discuss protocols and strategies on how to address this issue in low resource countries. Online research on continuing medical education and its impact on patient care and health outcomes was performed.

**Outcomes/Results:** The results indicate that continuing medical education improves physician delivery of healthcare. As a result, clear improvements in patient health outcomes are seen. The improvement in physician performance and patient health outcomes are more apparent when continuing medical education is more interactive, such as through a PowToon presentation and with the use of different learning methods (Cervero PH.D., R. and Gaines, MLIS, J. 2017).

**Evaluation/Conclusion:** Continuing medical education is a system that allows physicians to perfect their craft. This allows for an improvement in physician performance as well as an improvement in patient health outcomes. A more interactive form of CME as well as a variety of learning methods allow for a greater improvement in a physician's delivery of healthcare and as a result, provides health professionals with the most recent knowledge on health care advances.

**Title:** Self Management of Chronic Conditions

Name: Ivanne Ngo Bikai

**Preceptors:** Kwaku Gyekye, Program Director, Population Health

Agency: RWJ- Barnabas Health Jersey City Medical Center, Wealth From Health®

**Purpose:** To examine the importance of self-management of chronic conditions through the Wealth from Health® program. To ensure patients improving quality of life and reducing health care cost.

**Significance:** Chronic diseases affect approximately 133 million Americans, representing about 40% of the total population in the United States. By 2020, that number is projected to grow to an estimated 157 million, with 81 million having multiple conditions. This represents a major challenge for the health care system, being that these individuals require more services. Patients with poorly managed conditions have higher rates of inappropriate use of the Emergency Department. The Jersey City Medical Center implemented the Wealth from Health® Program, in an effort to reduce the burden of chronic conditions in Hudson County. The Wealth from Health® program is an innovative self management program. It provides patients the tools to be able to navigate the health care system as well as tangible rewards and discounts for their participation.

**Method/Approach:** The Wealth from Health® Program partners with 100+ local businesses and organizations to host health fairs and screening events. Individuals who are referred and enroll in the program are assessed using a combination of SF 12 surveys, one-on-one meetings and home visits in order to identify barriers that are contributing to the degradation of their health. Here the navigator, plans, implements, coordinates and prioritizes available services according to the patient's health needs. These patients benefit from high-quality, coordinated outpatient care. This coordinated care includes patient-managed tasks and educational activities that are 'best practices'. The quantitative approach was conducted by comparing pre and post enrollment cost by risk and by payor.

**Outcomes/Results:** Significant reduction in the inpatient total healthcare cost and ED cost of 8.7 million dollars. 93% patient compliance with documented referral outcomes. The Wealth from Health® program is an innovative patient engagement program that can be replicated in other hospitals.

#### **Evaluation/Conclusion:**

The evaluation is evidenced by reducing total cost of care, inpatient satisfaction, engagement and improving the quality of life of its members. A comprehensive population health management strategy that strives to address health needs at all points along the continuum of health and well-being through participation of, engagement with and targeted interventions for the community has been developed with marked success.

**Title:** Surgical closing techniques of the peritoneum wall and the affects of health outcomes in

postpartum women

Name: Annie Nguyen

**Preceptors:** Director supervisor: Gloria Bachmann, MD, MMS

Project Supervisor: Adrienne Simonds, PT, PhD and Charletta Ayers, MD, MPH

**Agency:** Robert Wood Johnson Medical School, Women's Health Institute

**Purpose:** Review of the literature regarding differences in surgical closure or non-closure of the peritoneum wall and the outcomes postpartum women experience after a Cesarean Section delivery.

**Significance:** Cesarean Section (CS) accounts for 15% of global deliveries, with substantial variability worldwide (De Nardo, P., Gentilotti, E., Nguhuni, B., et al., 2016). In the United States, an estimated 32.9% of deliveries occurred by Cesarean Section in 2009 (Lyell, D. J., Caughey, A. B., Hu, E., et al., 2012.). The differences in health outcomes maybe related to the surgical technique of closure or non-closure of the peritoneum wall.

**Method/Approach:** PubMed and CINAHL databases were searched in March 2017 using key words "Cesarean Section", "closure method", and "peritoneum wall." Exclusion criteria consisted of animal research, publication dates > 5 years, and articles not written in English.

Outcomes/Results: 15 articles were identified with the above search methodology. Two articles were excluded because it does not relate to the topic of closure or non-closure of the peritoneum wall. The remaining 13 articles were summarized for this review. The main findings indicated that closing of the peritoneum wall added increased adhesion formation at the incision (Lyell, D. J., Caughey, A. B., Hu, E., et al., 2012.). In contrast, the studies pertaining to non-closure of the peritoneum wall indicated that this type of surgical procedure results in less adhesion formation, less post-operative pain, and shorter operation duration (Bates GW, J., Shomento, S., Bates, G. J., et al., 2011).

**Evaluation/Conclusion:** According to the search only four out of nine articles were found that was done in the United States. This shows that further research is recommended within the United States on the surgical technique of closure and non-closure of the peritoneum wall and the differences in health outcomes. According to the medical literatures, operating procedure such as closure or non-closure of the peritoneum wall is associated with the healing outcomes of Cesarean Section. For instance, the pain score for the differences in surgical technique are as follow, for postoperative day one wound pain the number assessed were (MD -1.60, 95% CI -1.97 to -1.23) and chronic abdominal pain d by the visual analogue were (MD -1.10, 95% CI -1.39 to -0.81) these numbers was reduced in the non-closure group (Bamigboye, A. A., & Hofmeyr, G. J., 1014). Lastly, future research on adhesion treatment will be helpful for postpartum women with a closed peritoneum wall due to its higher rate of adhesion formation compared to non-closure (28% vs. 14%) ((Bates GW, J., Shomento, S., Bates, G. J., et al., 2011).

Title: Plastic Bags/Films Recycling Initiative

Name: Kelly Nguyen

Preceptors: Direct Supervisor: Carole Tolmachewich, Principal Planner

Project Supervisor: Deanna Miller, Environmental Advisor

**Agency:** Middlesex County Environmental Health Division

**Purpose:** To investigate what type of plastic bags/films local locations accept to create a media campaign educating Middlesex County residents.

**Significance:** Everyday recycling centers are shut down at least twice a day due to plastic bags/films getting stuck in recycling machineries. This causes workers' productivity to decline, damage to machineries that cost millions, and increases cost of recycling. In addition, plastic bags are causing major damage to the aquatic ecosystem. Animals are getting injured or dying due to getting stuck, suffocating, or ingesting plastic bags/films. The environment is also littered with plastic bags/films which will not decompose until 1000 years.

**Method/Approach:** Research will consist of investigating whether or not local grocery and retail stores in Middlesex County have plastic bags/films recycling bin and this will be done through site visits and phone calls. With this information obtained through the data collection a media campaign will be created educating residents on how to properly recycle plastic bags/films. A survey was created to evaluate if residents: (1) recycle plastic bags, (2) how they recycle their plastic bags (if they recycle), (3) how many times a month they recycle their plastic bags/films, (4) why (if they don't recycle), and (5) are residents aware of recycling bins at grocery and retail stores.

**Outcomes/Results:** Many grocery and retail stores accept plastic bags/films such as ACME, Target, Walmart, KOHL'S, and Stop and Shop. Out of 100 residents surveyed, 73 of them recycle. In addition, women are more likely than men to recycle. Although 27 residents do not recycle, they do reuse their plastic bags as trash bags, dog waste bags, and cat litter liner. There are 6 residents who recycle their plastic bags in their curbside bin and 4 of them are older than 45. Those who throw away their plastic bags are more likely to be ages 25-44; therefore, educational recycling programs should target this group.

**Evaluation/Conclusion:** Plastic bags/films are widely used in grocery and retail stores yet many people do not understand how to properly recycle them. It is recommended for residents to be aware of stores that accept plastic bags/films to allow convenience for them to recycle. Recycling clean, dry plastic bags/films needs to be done more often. Rather than plastic being thrown into landfills, it can be used to create plastic lumber which is better for the environment. Increasing residents' knowledge on recycling will hopefully increase the percentage of recycled plastic bags.

Title: Social Media Enhancement Project

Name: Charlotte Nickelberry

**Preceptors:** Supervisor: Dr. Judith Gurfein

**Agency:** Arista Counseling and Psychotherapy

**Purpose:** To enhance the social media presence of Arista Counseling and Psychotherapy and see if frequent posting leads to an increase in new patient intakes.

**Significance:** Each day, over 526 million users log onto and use facebook, either for professional or personal reasons. The American Psychological Association has over 90,000 followers. Most established psychologists who have been in the field for over 20 years don't utilize social networking in order to build their practices (2010). In not utilizing social media, or utilizing it incorrectly, private practices are losing out on free advertising and potential revenue. Research shows that Facebook and Twitter are the largest social media platforms and these can be used to enhance company presence on these platforms and improve intake numbers. Arista Counseling is striving to help as many people as possible in the Bergen County area, and needs to use social media to reach out to those who need help.

**Method/Approach:** On 1/18/17 a section was added to the intake spreadsheet for new patients. The section asks specific questions about how the potential patient heard about the practice. Social media presence was boosted on regularly, beginning on 2/15/17 by posting on facebook and twitter at least once a day and promoting the practice in facebook groups, along with telling others to promote it as well. Data from the 62 intakes taken during this time period were pulled, entered into a spreadsheet, and compared. Intakes obtained before revamping our social media (21) platforms and after (41) were compared. I also evaluated the specific question stating, "How did you hear about us?"

**Outcomes/Results:** From the sample before revamping social media (n=21), only 3 people said that they had heard of our center via social media. From the sample after revamping social media and frequently posting (n=41), 12 people said that they had heard about our center from social media. Thus, 14% of clients were referred to us from social media presence before we began posting more often. After boosting our social media presence, 29% of potential clients heard about us through our public platforms.

#### **Evaluation/Conclusion:**

Almost double the percentage of potential clients found out about us from social media after we revamped and frequented our social media platforms. Social media is crucial to advertising and reaching younger populations and continued posting and social media use will serve to gain a larger potential client pool. Although a change was noted, this study yielded a relatively low levels of intakes. It would have been beneficial to try out paid ads and see if that made a difference. It also would have been interesting to compare the number of likes and views on each page before and after boosting the Arista Counseling presence. These actions may have yielded a larger number of intakes, along with clearer results.

**Title:** Eligibility for Jersey Assistance for Community Caregiving (JACC)

Name: Gina Nufrio

Preceptors: Direct Supervisor: Ann J. Ferguson, MPH, Director of Linden Public Housing Authority

Project Supervisor: Alberto DeLeon, MSW, LSW, Director of Social Services

**Agency:** Linden Public Housing Authority

**Purpose:** To analyze the need for enrollment in Jersey Assistance for Community Caregiving (JACC) as an alternative to Medicaid services within a low-income population.

**Significance:** The primary goal of JACC is to deliver high quality support services for non-Medicaid eligible individuals aged 60 and up, which aim to delay or prevent placement into a nursing facility. There are 212 low-income tenants residing at Ann J. Ferguson towers who are mentally and/or physically disabled thus can benefit from JACC services. The purpose of the Social Services Department is to administer various support services, including assistance with insurance matters. JACC eligibility is determined according to clinical necessity, receiving a monthly income of no more than 356% of the Federal Poverty Level, and having no alternate means available to secure needed services and/or supports.

**Method/Approach:** Updates of the residents' income and insurance information were collected through daily office walk-in visits for the first 3 weeks. An initial analysis of residents that are currently enrolled in or qualify for Medicaid services was conducted. Resident profiles including age, current insurance information, and total monthly income were exported to a spreadsheet. Simultaneously, newsletters and announcements were administered to both English and Spanish speaking residents to educate them on this alternative form of service. Private meetings with interested applicants were conducted on a daily basis to determine financial and functional eligibility for JACC services.

**Outcomes/Results:** Of the 212 tenants at this location, 142 residents are not eligible for JACC services. Within this size, 64 already receive Medicaid services while 47 financially qualify, and 17 qualify both financially and by age for Medicaid. There are 70 residents that meet all financial eligibility criteria for JACC and can formally begin the application process to select his/her preferred services based on individual clinical necessity. Finally, 14 residents are under the age of 60 and must wait to apply.

**Evaluation/Conclusion:** Further determination of individual eligibility is required for all who meet the financial criteria after the initial application is completed. In order to meet all criteria for individual qualification, the applicant must be determined clinically eligible for nursing facility level of care as determined by State regulation, N.J.A.C. 8:85-2.1. This investigative process is conducted by the Union County Sector from the NJ Department of Human Services Division of Aging through a phone interview and home visit. As new tenants arrive and others remain, this process will continue.

Title: Job Readiness and American Workplace Culture

Name: Bonny Nunez

**Preceptors:** Niccole Soriano; Job Training Americorps

Fiorella Morales; Economic Empowerment Supervisor

**Agency:** The International Rescue Committee (IRC)

**Purpose:** To record the knowledge and functioning level of refugees, asylees, parolees in obtaining a basic understanding of the English language along with American workplace norms after completion of Job Readiness Training Course and English as a second language (ESL) classes.

**Significance:** "Education is the ultimate empowerment tool for... communities to survive and recover from conflict or crisis; it is what enables people to drive their own health, safety and prosperity" (IRC). The job readiness course was constructed to teach clients about the US workplace culture in order to help with self-sufficiency. Additionally, a basic English level understanding can significantly help IRC clients in the matters of safety and economic empowerment. A study by the U.S Census Bureau states that employment, work status, and earnings varied directly with their ability to speak and understand English. According to the study, the people with the lowest English speaking ability had the lowest employment rate, lowest rate of full-time employment, and lowest median earnings. ESL courses along with Job Readiness Training teaches clients more than just how to communicate with the common American, but it is imperative in the self-empowerment of each IRC client.

**Method/Approach:** IRC ESL courses run 3 days a week for 8 weeks and is divided into two groups based on 5 functioning levels. Clients are placed in their functioning level based on the score of their pretest which is administered before the start of each semester course. At the end of the course, each student is administered a post-test, one identical to the pre-test, to evaluate improvement. Attendance data for each class is recorded weekly into the Access Database and scores of pre and post-tests are case-noted onto ETO software.

**Outcomes/Results:** Out of 42 IRC clients with recorded pre and post ESL tests, 33 clients (79%) showed an improved pre to post-test score, 6 clients (14%) showed an identical pre to post-test score, and 3 clients (7%) showed a decreased pre to post-test score.

**Evaluation/Conclusion:** Though 33 of IRC clients showed improved post test scores, only 14 of those 33 client's (42%) moved up a functioning level, the remaining 19 (58%) clients stayed in the same level regardless of their improved score. Of the 14 who moved up a functioning level, 13 obtained only 3 or less absences. Out of the 19 clients who remained on the same functioning level, 11 of them along with the 3 clients with decreased pre to post-test score, obtained 4 or more absences. The 3-Unexcused Absence Policy for the ESL enrollment will be more strictly enforced to ensure improvement of the client for future semester courses.

Title: Quality of Support Groups for Parkinson's: A Patient and Care Partner Perspective

Name: Viemma Nwigwe

**Preceptors:** Cheylena Williams, APDA NJ Chapter Coordinator

**Agency:** American Parkinson Disease Association

**Purpose:** To measure the efficacy of support groups for Parkinson's disease.

**Significance:** Parkinson's disease is a chronic, progressive neurodegenerative disease. There is inadequate data on the incidence and prevalence of Parkinson's disease, but it is estimated to affect 500,000 to 1,500,000 people in the United States and the prevalence will more than double by 2040. For patients that are feeling frustrated about life with Parkinson's disease, joining a support group can be one of the best ways to alleviate anxiety and discuss experiences with others who can relate. Care partners also benefit greatly from sharing questions and concerns with individuals in a similar position. However, not all support groups are right for everyone. Some people have tried their local support group and discovered they didn't like it and some people can't even find a support group in their area. This evidence suggests that there is a gap in providing high-quality support groups for Parkinson's disease. Evaluation of support groups for Parkinson's disease can highlight underdeveloped features of the program and serve as a basis for intervention.

**Method/Approach:** A qualitative survey was administered to attendees of the annual Living Well with Parkinson's Disease Conference using iClickers, radio frequency devices that allow anonymous response to questions. The evaluation procedure examined, among other things, quality of support group implementation and support group personnel. Two hundred individuals were surveyed. Data for individuals who said yes to having attended a support group before were exported to a spreadsheet. These individuals were then divided into two groups, patients and care partners.

**Outcomes/Results:** Out of the 200 participants surveyed, only 86 of them said yes to having attended a support group before. Of the support group attendees, 72% were living with Parkinson's disease and 28% were care partners. Among the cohort of individuals living with Parkinson's disease (n=62), 17 (27%) were dissatisfied with the content of their support group discussion, 26 (42%) were dissatisfied with the location/accessibility of their support group, and 16 (26%) were dissatisfied with communication by support group personnel outside of their support group. Among the cohort of individuals that identified as care partners (n=24), 5 (21%) were dissatisfied with the content of their support group discussion, 11 (46%) were dissatisfied with the location/accessibility of their support group, and 3 (13%) were dissatisfied with communication by support group personnel outside of their support group. A satisfactory response was determined to be a rating of "good" or "excellent" while a unsatisfactory response was determined to be a rating of "average", "fair", or "poor".

**Evaluation/Conclusion:** More attention should be given to the location/accessibility of Parkinson's support groups as it has been identified as an aspect that attendees are least satisfied with. Further analysis of this aspect of Parkinson's support groups can determine effective intervention strategies.

**Title:** Center For Preventative Action Volunteer Intern

Name: Caroline O'Leary

**Preceptors:** Research Associate: Jennifer Wilson, National Security

Senior Fellow: Micah Zenko, Center for Preventive Action

**Agency:** The Council on Foreign Relations, New York, NY

**Purpose:** To keep the Center for Preventive Action's Global Conflict Tracker's information current, updated, and informative to those who wish to access it.

**Significance:** The Center for Preventive Action released its 2016 Preventive Priorities Survey in December. When conducting the survey, CFR gathered more than five hundred foreign policy expert responses on thirty conflicts, "deemed both plausible over the next twelve months and potentially harmful to U.S. interests. Each was asked to estimate the likelihood and impact on U.S. interests of each of the contingencies according to general guidelines. The survey results were then scored according to their ranking, and the contingencies were subsequently sorted into one of three priority tiers." Every year, tens of thousands of people view CFR's Global Conflict Tracker. They use it to remain updated on the background of global conflicts that pose a risk to the United States, as well as to receive updates and current news on the conflicts. This site is viewed by policy-makers and the general public, and it is therefore vital that it remain up-to-date and accurate.

**Method/Approach:** Research is ongoing, as each conflict is dynamic and evolving. Day-to-day, work consists of reading primary sources on each conflict and utilizing statistics from reputable government agencies to keep the pages updated. Gathering news from reliable sources such as the BBC and Al Jazeera are essential to keep the pages as current as possible. Everything contributed to the site is peer-reviewed.

Outcomes/Results: As mentioned previously, updating the pages is ongoing, and will continue past this internship with CFR. However, statistics, photos, sources, and alerts for the following pages: South China Sea, Islamist Militancy in Russia, North Korea, Civil War in Libya, Islamist Militancy in Pakistan, Islamist Militancy in Egypt, Ukraine, Boko Haram in Nigeria, Yemen, EU Refugee Crisis, Somalian Al-Shabab, Democratic Republic of Congo, East China Sea, and Sectarian Conflict in Lebanon have had ongoing updates. Future additions to these pages are pending, and they will likely be revised going forward.

**Evaluation/Conclusion:** Evaluations relied on project supervisors critiquing submitted work. They supply all writing with feedback, and will not allow updates until they feel the work is strong enough to be added to the site. Therefore, each post made has been reviewed and approved for public consumption. In the future, interns will have valuable information on each of the pages, and this project has ensured that the information is as current as possible, which will help expedite the update process.

**Title:** Partnering for Help and Hope

Name: Diana Obarisiagbon

**Preceptors:** Project Supervisor: Hazeline Pilgrim, Executive Director

**Agency:** Family Support Organization of Essex County

**Purpose:** To raise awareness about mental illnesses, such as depression, attention deficit hyperactivity disorder (ADHD), and anxiety in children and youths by educating the community about psychological disorders, while providing support, education and advocacy for families who live with these challenges.

**Significance:** Mental health is an essential part of children's overall health. An estimated 15 million of our nation's children age 8-17 are currently diagnosed with a mental health disorder (Dept of Health and Human Services, 2001). According to the Center for Disease Control and Prevention, children are more likely to have a MBDD (mental, behavioral, or developmental disorder) if they are from families living at less than 100% of the federal poverty level and families that speak English in the home. This evidence indicates that there is great need to raise awareness by targeting certain populations and providing the best available care, support and treatment. Partnering with local facilities such as YMCA, family shelters, etc. will target populations that may be unaware of the signs and symptoms of mental illnesses in children and serve to reduce the stigma surrounding mental health conditions. By drawing attention to children's mental health, families and community residents will find help and hope for those in need.

**Method/Approach:** In order to increase public awareness, the organization created a plan as preparation towards raising awareness for children who have mental health challenges. The first step taken was incorporating social media to help raise awareness for the month of May. The social media campaign was completed in the weeks leading up to Children's Mental Health Awareness Day. The campaign involved quotes, helpful tips, information, and ideas that focus on addressing the percentage of children who have mental health, educating about the common disorders found among children age 8 -15 and its ripple effects, and acknowledging the different sign of mental illness. The second step before creating an event for May 4, 2017 (Children's Mental Health Awareness Day) was to create a list of community partners exhibitors who would provide information relevant to mental health. The 2017 national theme for Children's Mental Health Awareness Month is, "Partnering for Help and Hope" which will be used to show support to children, youth, and families who live with these challenges.

**Outcomes:** The organization has obtained approval from YMCA of East Orange, NJ to use their location for the event. The Community Resource Fair would include exhibitors with information relevant to mental health, entertainment such as poetry, dancing, magicians and clowns, refreshments, speakers such as the board director, parent presenter, and teens from the Youth Partnership Program at the Family Support Organization. Outcomes are likely to reveal a meaningful understanding of poor mental health and draw parents to seek effective treatment and support for their children.

**Conclusion:** The Community Resource Fair will serve as a reminder of the importance, and necessity of mental wellness, awareness, and acceptance to parents to help them detect the early warning signs, provide resources for prevention, and early intervention for their children.

Title: Text Messaging Pilot Program: Improve Patient Experience and Efficiency

Name: Anita Omambia

**Preceptors:** Practice Leader, Jane Peterson

Clinical Supervisor, Richard Harwan

**Agency:** Memorial Sloan Kettering Cancer Center NY, NY

**Purpose:** To create a wait time transparent relationship so that patients are aware of clinic delays to reduce patient frustration.

**Significance:** A big part of improving the patient experience is reducing waiting time. Too many patients scheduled for minor procedures have to wait as more serious cases go longer than expected. Wait times build, and patient satisfaction drops. The mission of Memorial Sloan-Kettering Cancer Center and Affiliated Corporations is to provide leadership in the prevention, treatment and cure of cancer through excellence, vision and cost effectiveness in patient care, outreach programs, research, and education. Therefore, steps to keep patients informed of wait times may improve patient satisfaction overall.

**Method/Approach:** A pilot intervention using SMS text updates to patients took place only on the 5th floor in the medicine clinics, chemo unit, and "floating patients" in other units. The program ran for six weeks. Patients were consented to SMS texting when they arrive to their appointments. Patients could choose to opt out of the program but they are encouraged to enroll. Face to face interaction with patients was still maintained and this program served in a supplement role. Patients were still encouraged to talk to session assistants for any required help. Consistent messages help to improve communication. Success was measured through paper and online surveys for both patients and staff but most importantly we value anecdotal feedback from patients. Employees will be jotting down any verbal feedback they hear.

**Evaluation/Conclusion:** The program is still running and we have yet to conclude. However, preliminary survey results indicate that 80% of the patients who consented to the pilot program improved their experience for that day. Patients who were not technologically savvy had the opportunity to opt out of the pilot. If the success continues, this program has the potential to be the model for other departments.

**Title:** The Bloustein School Website Remodel

Name: Noah Pardes

**Preceptors:** Alexandra Lopez, Assistant Teaching Professor

Amy E. Underhill Abruzzi, Undergraduate Public Health Program Coordinator

**Agency:** Edward J. Bloustein School of Planning and Public Policy

**Purpose:** To analyze the current web and social media presence of the Bloustein School and propose new innovative ideas to make the website user friendly, intuitive, and effective.

**Significance:** After taking stock of Bloustein's current website and online presence, there is a lot missing that should be addressed to make the site more encompassing to new students and more informative to current students and alumni. Creating a sense of community through the website is an important goal for the Bloustein School and their current website is not conducive to that type of environment. An example of a successful website that incorporates all parts of the student body and community is Johns Hopkins Public Health School website, who has reported having a significant increase in student and community involvement since revamping their own website. As tasked by the Bloustein staff, the Bloustein website should be a place for students and alumni to communicate with each other and the school to help advance everyone's personal goals, as well as strengthen the overall community. Creating a sense of togetherness and community would work towards improving the overall Rutgers reputation, as well as make the Bloustein school more welcoming to new people.

**Approach:** To begin, an assessment was conducted on the best practices for online presence and community building. This included examining databases, analysing current successful websites from acclaimed schools such as Johns Hopkins, and interviewing current students on their preferences and what would make the website more useful and inviting for them. After qualitative data collection, potential designs were created through a brainstorming session with other staff members. These different designs cover all aspects of the online and community presence from updating current social media outlets, to creating new programs for new students, to establishing an alumni and current student forum to aid in job search and inquiry.

**Results:** All of the ideas and designs will be presented to the Bloustein staff, faculty and deans. Some of these ideas include: an Employer Posting Page, where employers can work directly with the Bloustein school to fill positions from graduating students; an open forum discussion between prospective and current students, where prospective students can ask questions from students currently studying in the Bloustein school; and a Community Service/Initiatives Involvement page, where postings about public projects will be listed and students can sign up through the site to get involved in more community based activities and programs. This presentation will be completed on May 4th, with the intention of having these plans immediately implemented into the Bloustein site and community. This will contribute to expanding the Bloustein school's outreach and make it a much more close knit and welcoming community.

**Conclusion:** If implementation occurs, there will be several focus groups conducted to gauge community input on how the changes to the website have benefited the overall presence of the Bloustein School. These focus groups will contain prospective students enrolled in Bloustein current students enrolled and alumni who graduated from the Bloustein school. The findings of these focus groups will be analyzed and presented to the Bloustein teaching staff and deans for revaluation and improvements that can be made to the current programs which we instilled in the community.

**Title:** A Survey on Women's Views on Hypoactive Sexual Desire Disorder

Name: Dolly Patel

**Preceptors:** Nancy Phillips, MD, Obstetrician/Gynecologist, Associate Professor

Agency: Rutgers Robert Wood Johnson Medical School, Women's Health Institute

**Purpose:** To design a survey that will gather information on women's knowledge of hypoactive sexual desire disorder and its treatment with flibanserin, an FDA approved medication

**Significance:** Flibanserin is a medication used to treat female hypoactive sexual desire order (HSDD) in premenopausal women. The FDA's approval of flibanserin in 2015 was highly anticipated. The media referred to the drug as "female Viagra" and "the little pink pill", comparing it to Viagra, a popular and successful drug used to treat erectile dysfunction in men. The pharmaceutical company selling the drug, Valeant pharmaceuticals, predicted to make \$100 million to \$150 million a year in sales. Many women's health and gender equality advocacy groups hailed the approval as the biggest breakthrough in women's sexual health since birth control. However, after the drug's approval, physicians did not experience the expected high demand for the drug. Identifying the extent of patients' knowledge of HSDD, and their possible reservations about the drug, will be helpful for physicians when diagnosing, counseling and treating women with HSDD in the future.

**Method/Approach:** Google Scholar and the Boolean Search Method were used to conduct a literature search on flibanserin, HSDD, and possible reasons for reservations about the drug. Based on the literature review, factors that could explain why women were not receptive to flibanserin are cost<sup>3</sup>, serious side effects<sup>4</sup>, potential interactions with alcohol<sup>4</sup>, and low efficacy, as meta-analysis found that the drug allows women to only have one-half to one more sexual satisfying events per month<sup>4</sup>. Validated survey templates used by the Women's Health Institute were obtained to format the survey. Information from the literature search and a dichotomous rating scale were used to develop a 19-question survey. The survey, an IRB proposal, and survey consent form were submitted for IRB approval.

**Outcomes/Results:** Preliminary data highlighting 2 of the 19 survey questions showed that 28 out of 35 (80%) women answered "no" to the question asking if they are aware HSDD is considered a medical condition, 5 out of 35 (14%) answered "yes", and 2 out of 35 (6%) chose not to answer. Data also showed that 30 out of 35 (86%) women answered "no" to the question asking if they have heard of the drug by its scientific name, flibanserin, or its generic name, Addyi, 3 out of 35 (8%) answered "yes", and 2 out of 35 (6%) did not answer.

**Evaluation/Conclusion:** The IRB approved the survey on March 29, 2017. A pretest was conducted to determine the validity of the survey questions. The surveys are being completed as anticipated and will be distributed to 400 female patients at an outpatient gynecology clinic. Preliminary data indicate that most women are not aware of HSDD and flibanserin. Survey results will continue to be monitored throughout the remainder of the study.

Title: Decreasing Common Misconceptions About Flu Shots

Name: Prem Patel

**Preceptors:** Jack Wang PharmD Pharmacist In Charge

**Agency:** CVS Pharmacy

**Purpose:** To evaluate-any misconceptions about flu shots any patients may have, and make recommendations to increase the number of flu shots administered.

**Significance:** The influenza virus is one that plagues us on a yearly basis, but this virus can be easily avoided. Since October of 2016 up until March 25 2017, there have been over 11,000 cases total(total between 4 different flu strains) reported in NJ alone. According to NJ Health we are still at a high flu activity level. Many people avoid getting the flu shot because of misconceptions they have read on the internet. Denying the flu vaccine can have many consequences on the individual and on those around them. Personally getting the flu can cost almost hundreds of times more than getting the flu vaccine. Commonly prescribed medicine for the flu is Tamiflu, which can costs hundreds of dollars. Getting the flu can also cause some people to miss work, which is a bigger deal for those in lower economic classes.

**Method/Approach:** In order to increase the amount of flu vaccines administered at my CVS I developed a brochure that dispels common myths regarding the flu vaccine. I used several sources to complete my research, mainly using the CDC website to find many of the misconceptions regarding the vaccine. Once the research was complete I was able to create and dispense my brochures to the patients, after the information was verified by the pharmacist Jack Wang. The pharmacist also allowed me to verbally answer any questions patients may have had, and Mr. Wang helped fill in gaps if their was some information I did not know. I will also ask patients who refused the vaccine this this year and last year the reasons for refusal, this is to see of the issue is truly because of misconceptions or there are other barriers I need to look into.

**Outcomes/Results:** The overall goal of increasing flu shots was met during my time at the internship. There was a 74% increase in flu shots administered from 2015-2016 to 2016-2017 (84 to 150). The project had a sample size of 83 patients, 43 agreed to get the flu shot and 40 did not. Of the 40 who refused <sup>3</sup>/<sub>4</sub> (27 patients) of the patients refused due to time constraints. Only 4 of the 40 (10 %) refused because of misconceptions. Of the 43 who agreed to get vaccinated 27 had not been vaccinated the previous year. Of those 27, 7 avoided the vaccine due to a misconception, 14 did not get one due to time constraints and the remaining 6 said they did not know their insurance would cover vaccines at a pharmacy.

**Evaluation/Conclusion:** A majority of the patients denied vaccines because they felt it would take too long. Although I increased the vaccinations, the overall approach was wrong because most refusals were not due to misconceptions.

Title: Leukocytosis due to Inflammatory or Bacterial Responses

Name: Priyanka Patel

Preceptors: Charumathi Rathnakumar, MD, Medical Director

**Agency:** Advanced Infectious Diseases Consultants, LLC

**Purpose:** To research and analyze whether a diagnosis of leukocytosis is an inflammatory response or a bacterial stress response to develop guidelines to prevent cases and aid in treatment.

**Significance:** A diagnosis of leukocytosis is given when the white blood cell count is above the normal range which can be a sign of an inflammatory response to an infection. Leukocytosis can be triggered by certain stimuli which includes surgery, exercise, trauma, certain medications, asplenia, smoking, obesity, chronic inflammatory conditions, and emotional stress. Symptoms of leukocytosis include fever, weight loss, bruising, or fatigue (American Family Physician). A typical leukemoid reaction, however, occurs in the presence of an acutely stressful or inflammatory/infectious event, such as hemorrhage, hemolysis, febrile episodes, sepsis, trauma, pancreatitis, or Clostridium difficile infection. The normal adult leukocyte count ranges from approximately 4,000 to 10,000 cells/mm³ (Antimicrobe). Knowing the whether the leukocytosis is due to an inflammatory response or a bacterial response can aide in the treatment process.

**Method/Approach:** Samples for the study were compiled by collecting all the facesheets of new patients that were seen that were seen in the hospital that week. The patients are then looked up on the electronic medical records of the corresponding hospital to see what diagnoses were given. All the patients that were then diagnosed with leukocytosis are compiled. Those patients were then categorized as having leukocytosis due to a bacterial stress responses, inflammatory responses, both, or none by looking into their other diagnoses.

**Outcomes/Results:** Out of the sample that was compiled, 15.4% were categorized as inflammatory responses, 53.8% were categorized as bacterial stress responses, 15.4% were categorized as both, and 15.4% were categorized as neither.

**Evaluation/Conclusion:** Patients were more likely to have been diagnosed with leukocytosis because of a bacterial response than an inflammatory response.

**Title:** Middlesex County Comprehensive Master Plan SWOT Analysis

Name: Roma Patel

**Preceptors:** Direct Supervisor: Mirah Becker, Supervisor of Comprehensive Planning and

Environment

**Agency:** Middlesex County Office of Planning

**Purpose:** To create a solid foundation for the new county master plan that includes input from the transportation, land use, community services, arts and culture, economic and business development, and public safety offices within the county. The last Middlesex County Plan was written forty years ago.

**Significance:** Every county level government is mandated to have an up to date master plan that is relevant to their county's work and accomplishments. The master plan guides a flow of communication between departments in order to achieve broader goals as well as conserve resources within the county by minimizing overlap and conflict.

**Method/Approach:** A qualitative approach was taken in order to create foundational work of the new master plan. By interviewing various higher level county employees, feedback was provided on how to improve communication between departments, minimize conflicts between offices, and establish a vision of the new master plan. Once data was gathered, a SWOT analysis was conducted in order to create a foundational outline for the new Middlesex County Comprehensive Plan.

**Outcomes/Results**: It was found that three of the five department heads within the county, felt as though there was a lack of communication between certain offices. Various supervisors only spoke to their office and interacted outside of their office, when receiving approval or information of another office. The opportunities portion of the SWOT analysis were found to be feasible if the resources were available, however the budget may not allow for each of these projects. The three that felt there was a lack of communication believed there was a lot of room for collaboration, however, the biggest issue faced within the county is that people do not work beyond their own scope of work (i.e. only work at the minimum of what their job requires of them; they do not think in terms of a larger picture). In conclusion, the SWOT Analysis laid a solid foundation of the next steps of the master plan.

**Evaluation/Conclusion:** A satisfaction survey was provided to each department head instead of each supervisory position within each office, due to difficulty in scheduling meeting times and receiving proper feedback. The satisfaction survey was ranked on a scale from 1-5 based on the degree that the person agreed with the statement, 1 being completely disagree, 2- somewhat disagree, 3- neutral, 4-somewhat agree, 5-completely agree. The questions provided were to evaluate whether the conducted SWOT analysis created a solid foundation of the upcoming master plan/ whether it reflected the general outlook of the county.

**Title:** Session Assistant I Breast Cancer Center Check-in

Name: Camila Pena

**Preceptors:** Clinical Supervisor: Jill Clayton

Practice Leader: Danielle Ruffini

**Agency:** Memorial Sloan Kettering Cancer Center

**Purpose:** To understand best practices in patient communication, management and logistics in a large and complex cancer center.

**Significance:** Around ½ women get diagnosed with invasive breast cancer in their lifetime. The impact of this disease aside from potential mortality can be seen through physical and emotional stress associated with treatment such as chemotherapy, radiation and surgery. The Session Assistant role at the Breast and Imaging Center is extremely important as it has the responsibility to remain respectful and empathetic while simultaneously completing tasks related to patient safety and efficiency of their visit. The introduction of a positive demeanor and warm welcome provided to patients helps patients understand that they are not alone in this fight.

**Approach:** Capable of maintaining a good clinic/office environment while working directly with the check-in process for breast cancer patients. Organizing papers for the patient to fill out, and for your peers to have for the next day. Proving and following key management practices including maintaining a good environment while balancing time and different tasks.

**Best Practices:** The best way is to try to do as much as one can for the patient. The way that this starts is by organizing and anticipating the patients visit before they arrive so that their visit runs smoothly. In addition, creating an environment where the patient remains the most important part of the visit. The SAI job should be to provide excellent customer service, and attempt to accomplish all of the patient's' wishes.

**Lessons Learned:** One of the most significant things learned was to rely on other's help. The whole clinic works as a team, and therefore, if one is busy, others can help so the patient's' visit is more pleasant. Moreover, supervisors are very helpful with offering assistance. If a staff member is struggling with something, the supervisors will help provide support, since they have the most knowledge of the work one is doing in the clinic. Finally, in this type of setting, one can learn how to multitask, and how to communicate clearly between departments, so patients' requests are met.

**Title:** Relationship between PCS Scores and Length of PT Treatment in WC Patients

Name: Monica Peram

**Preceptors:** Cynthia Mark, PT, DPT, OCS

Center Manager

**Agency:** Kessler Institute for Rehabilitation, a division of Select Medical

**Purpose:** To assess the influence of pain-related fear with overall performance and length of treatment of workers compensation (WC) patients undergoing physical therapy (PT).

**Significance:** In past research, it was found that high scores on a measure of catastrophizing fear predicted the degree of pain that individuals experienced and contributed to higher level of disability in the weeks that followed. Studies have supported the notion that the influence of pain-related fear is significantly associated with restricted physical performance. There is some evidence in studies to suggest that exaggerated negative interpretations of pain is shown to be associated with increased level of pain intensity and disability.

**Methodology:** The Pain Catastrophizing Scale (PCS) Questionnaire<sup>2</sup> was administered to 73 WC patients receiving PT. Self-reported questionnaires, PCS, were completed as part of the intake procedure of patients. Mean age of patients was 48 years (range 20 to 67). Patients self-reported their degree of pain-related fear by answering thirteen statements that described different thoughts and feelings that may be associated with pain. Each statement is scored on a scale of 0-4 (0= Not at all; 1= To a Slight Degree; 2= To a Moderate Degree; 3= To a Great Degree; and 4= All the time). The expected Minimal Detectable Change (MDC) is 9.1 RAW points.

**Results:** Of the sample size cohort (n=73), the average PCS Raw Score at admit and discharge was 22.68 and 18.86 respectively. The average length of treatment was 13 visits (range 4 to 27). At admit, there was a record of 31 (42%) patients with PCS scores (range 24 to 52) above the mean. Of the patients with PCS scores above the mean, 15 (48%) patients exceeded the average length of treatment. In terms of pain-related fear, two components of the questionnaire with the highest scores of 3 or higher were analyzed; 38 (52%) patients reported that they are afraid that the pain will get worse and 41 (56%) patients reported that they are anxious about wanting the pain to go away.

Conclusion: The PCS questionnaire is a disability index where scores are expected to decline throughout the course of PT. The average PCS Score at admit and discharge decreased in this sample analysis, however, it did not meet the MDC of 9.1 RAW points. Pain-related fear influenced the PCS scores in some patients which also affected their overall length of PT treatment. Limitations such as severity of injury, type of injury, age, gender, job satisfaction, sample size, alternative interventions (i.e., insurance, Specialist, etc) and extenuating circumstances (i.e., surgeries, discharges, etc) will need to be taken into consideration when interpreting results.

**Title:** Pesticide Free Zone Campaign in Lawrence Township

Name: Morgan Pesanelli

**Preceptors:** Eric Benson

**Agency:** Clean Water Action Montclair

**Purpose:** To reduce the use of pesticides in Lawrence Township, New Jersey, by adopting the Integrated Pest Management (IPM) policy and canvassing door to door promoting safe lawn care to residents.

**Significance:** The U.S. Environmental Protection Agency states that the term pesticide not only refers to insecticides, but also herbicides, fungicides, and various other substances used to control pests. Pesticide use in the non-agricultural sector is increasing every year. The EPA identified that out of the 30 commonly used pesticides, 19 are linked to cancer or carcinogenicity. Studies associate exposure to pesticides with numerous health hazards and highlight the susceptibility of infants and children to these chemicals. Integrated Pest Management (IPM) is an environmentally friendly approach to managing pests with a focus on prevention. By adopting an IPM policy a municipality can make sure that pests are managed in a way that is least likely to impact human health or the environment.

**Method/Approach:** Attending the monthly Lawrence Township Environmental Resource and Sustainable Green Advisory Committee (ERSGAC) meetings was necessary to gain ERSGAC's support on the IPM policy. Ascertaining the current pesticide practices was necessary before ERSGAC could support the IPM policy. A meeting was held with the parks supervisor who is responsible for applying the pesticides in parks and public facilities. Playgrounds were identified as Pesticide Free Zones. During the next ERSGAC meeting the township's current pesticide practices were discussed and support was given for the IPM policy to move forward. The IPM policy would be added to the town council agenda with the approval of the town manager and director of public works.

**Outcomes/Results:** The Montclair and Long Branch Clean Water Action offices canvassed Lawrence on April 4th. Thirty-seven letters were written to the town council and mayor in support of the campaign. Fifty-two brochures on organic lawn care were given out to to residents as well. A meeting was held with the town manager and the director of public works. At this meeting it was recommended by the two men that the policy needed to be further worked on before being presented to the town council.

**Evaluation/Conclusion:** The IPM policy needs further work before being presented to town council. Town officials want the policy to be geared towards pesticide free playgrounds instead of a complete municipal resolution. Information that needs to be added to the policy includes a plan on what new organic fertilizers and pesticides would be replace old methods. When canvassing, 108 residents were talked to about the Pesticide Free Zone campaign that was conducted in the town, and signed their names in support. Some residents supported this initiative by writing letters to the town mayor and council. The organic lawn care brochures give residents the opportunity to bring safer, healthier lawn care to their own homes.

Title: Increasing Service Utilization in Educational Programming with Mandated

Students

Name: Alexandra Philogene

**Preceptors:** Tanisha Riley

**Agency:** Rutgers Health Services: Health Outreach Promotion and Education (H.O.P.E.)

**Purpose:** To track and monitor the number of incidents involving alcohol violations on campus and off campus and develop a strategy to increase service utilization and the provision of mandated educational programming.

**Significance:** The significance of this project is to reduce the illegal use and misuse of alcohol at Rutgers University, among students at-risk through opportunities for increased educational programming. The definition of service utilization is the measure of the population's use of the health care services available to students. Ashley Miller writes, "The Effects of Drugs & Alcohol on College Campuses", "Alcohol and substance abuse is a serious problem on college campuses. In 2010, 22 percent of college students admitted to using illicit drugs, and 63.3 percent of college students identified as heavy drinkers, according to the results from the 2011 National Survey on Drug Use and Health: Summary of National Findings. Alcohol and substance abuse among college students has a number of serious, detrimental effects on both the individual and campus levels".

**Method/Approach:** The method used to increase service utilization are mandated educational workshops for students caught on campus and off campus found illegally drinking, or misusing alcohol. During the workshop the students are taught about health services available to them on Rutgers campus, the biological and physical effects of drinking alcohol, how many ounces is considered a standard drink. There are also activities that are geared towards self-realization, meaning that students have to think about why they drink, what they like about drinking, what they dislike about why they drink and why they started drinking. Some of the responses were, "drinking is relaxing", "it loosens a person up" and "peers drinking influenced my drinking habits", these responses/data was collected through students writing the responses during the workshop.

**Outcomes/Results:** Increasing service utilization in educational programming with mandated students encompasses more of a research. In January 2016 and according to last years statistics of mandated alcohol workshops conducted, HOPE is 10 programs away from reaching last year number of 61 that were calculated manually, ending in May 2017. There has also been, an increase in programs about alcohol and other drugs education requested across the five campuses.

**Evaluation/Conclusion:** During the 2015-2016 academic year, the tracking sheet was implemented and there were 61 mandated alcohol workshops conducted and 321 students attended program. Not all of the students completed the workshops in the time allotted so at the end of the semester around April an influx of students were requesting the workshop. This academic year 2016-2017, 434 students have been referred, the number of programs offered increased by 16 and in April of 2017 there was not an influx of students registering for the workshop. By increasing the number of workshops available, students have a better chance of attending an educational program which will teach valuable safer drinking techniques to help students reduce high risk drinking behaviors that may cause them harm.

**Title:** Implementing an Online System for Human Resources

Name: Jovania Pierre

**Preceptors:** Neepa Sarker, HRIS Manager

**Agency:** Saint Peter's Healthcare System, New Brunswick, NJ

**Purpose:** To assess employee satisfaction of current electronic system and identify interests and barriers to a new e-Human Resources system

**Significance:** As the digital age continues to expand in many fields, human resources in St. Peter's Human Resources remains highly reliant on paper and traditional filing systems. Employees are met with high amounts of paperwork that must be properly filed in order to remain compliant. For example, the beginning of 2017 was spent sorting through a spreadsheet that listed over 1200 employees' dates of hire and dates of termination to determine whether to file or shred their Form I-9. Form I-9 is an essential document that provides important information on employee eligibility to work in the United States. Relying on paper versus an electronic system puts the organization at risk of penalties due to man-made error. Physical paper filing is used for employee status changes, through Personal Action Forms. By implementing, or simply exploring the idea of implementation, the HR department will increase in efficiency. An improved electronic system will create a more convenient work environment in Human Resources.

**Method/Approach:** Analysis will begin with a survey to be distributed to each employee in the Human Resources Department. The questions will assess their opinions on the current paper system and inquire about potential interest in adapting an electronic system. The survey will be designed to highlight driving forces as well as barriers to an electronic Human Resources system.

**Outcomes/Results:** The outcome proves there is a general interest in moving to an electronic system, one that allows for more functions than the current system, Lawson. Of all surveyed employees,70% are unsatisfied with the current system, 10% very unsatisfied, and 20% satisfied. The biggest objection, however, is that the budget does not allow for implementation. Also, most employees responded that the reason a better system has not been enacted is due to lack of initiative.

**Evaluation/Conclusion:** A one page summary will be given to all department managers explaining employee interest in a new e-HR system. The summary will detail what practices will be best implemented through an improved electronic system as well as directions to overcome existing barriers

**Summary:** (https://docs.google.com/document/d/1zn7ewSu1tchi\_-QLut8SkscVs-ZKmqLMiSZe1D2PusI/edit?usp=sharing)

Title: Top-10 Spiritual Wellness Interests of Adult Churchgoers in Northeastern New Jersey

poster

Name: Micheldy Pierre

**Preceptors:** Dr. Denise Mari

**Agency:** House of Hope International

**Purpose:** To present important information about spiritual wellness categories in adults --topics such as sense of worth, admitting addictions, and reasons for belief.

**Significance:** One of the reasons the House of Hope International promotes spiritual wellness to those who are interested is because of its benefits to health in general. Busy church-ministry leaders or chaplains, who are often asked by churchgoers to provide or indicate educational resources promoting spiritual well-being, realize they can do their job more efficiently by making the most helpful resources readily available at their church. Such religious professionals are free to request spiritual wellness resource stations on church premises from the House of Hope International.

**Method/Approach:** The project was conducted by a clinical psychologist-counselor and educational psychologist-counselor who specialize in assisting numerous church groups on spiritual distress and wellness issues, including setting up spiritual wellness resource stations in church settings. The specific topics of the spiritual wellness pamphlets featured in the stations are the result of repeated House of Hope Int'l staff meetings with dozens of religious professionals about the questions most frequently asked of them by spiritual directees. The project also used a junior public health research aide tasked with responding to different selected spiritual wellness materials, delivering them to religious-helping professionals, monitoring their use by churchgoers, and completing relevant clerical and survey work. In reference to monitoring churchgoer use of the spiritual wellness pamphlets, frequency counts of the different print resources taken home by churchgoers were recorded.

**Results:** By the end of the project, there was a poster presenting a list of the 10 categories of spiritual wellness resources most popularly accessed by local New Jersey churchgoers. Surprisingly, the top 6 categories remained the same from week to week. Project results are meant to contribute to decision-making by religious leaders and other helping professionals about which specific spiritual wellness content areas need educational emphasis in outreaches to their communities of care.

**Conclusion:** The success of the project will be gauged by record-keeping of the counts of most frequently taken-home resources as well as follow-up surveys of adult churchgoer satisfaction with the spiritual wellness materials. In the future, it might be interesting for an interested researcher to compare such spiritual wellness interest areas of churchgoers to visitors of doctor offices providing the same spiritual health literature.

**Title:** Caseworker Monitoring

Name: Phito Pierrilus

**Preceptor:** Direct Supervisor: Michael Best, Disaster Recovery Specialist

**Agency:** American Red Cross/ New Jersey Region

**Purpose:** To facilitate Direct Client Assistance (DCA) by using Client Assistance System (CAS) software to regional recovery caseworkers.

**Significance:** In the last decade, natural disasters have caused more than 5000 deaths in the United States and 90% of them are associated to house fires. It has been stated, "The American Red Cross (ARC) tracks disaster-related mortality in all 50 states. For the ARC, the main goal of tracking disaster-related mortality is to identify deaths so that they can provide condolence services to surviving family members (Farag, N., Rey, A., Noe, R., Bayleyegn, T., Wood, A., & Zane, D. 2013). Moreover, within community disasters and crisis, The ARC offers temporary assistance including food and shelter, first aid, and minimal health care. By Identifying the casework principle, American Red Cross has developed a successful approach of disaster rehabilitation and relief.

**Method/Approach:** Most of the research are conducted through Client Assistance System (CAS) that ensures disaster cases to caseworkers. Thus, a daily case monitoring spreadsheet has run by the Disaster Recovery Specialist in order to summarize new and old county cases that need follow-up, referrals, supervisor reviews, and health services.

**Outcomes/Results:** Information gathered from CAS has helped the recovery caseworkers team to follow-up with the cases within 72 hours. However, the recovery budget is the only issue when it comes to clients' support because the money given through the Client Assistance Cards (CAC) is based on the household size rather than the number of loss.

**Evaluation/Conclusion:** After each follow-up, an automatic update is made on CAS which also serves as a reminder as regards when the next client case is due. Additionally, the work standard provided by the team has enabled the organization to complete a minimum of 90% of disaster cases weekly. Although, there is still room for improvement as most of the time the cases that have been assigned to caseworkers are late and missing clients information.

References: https://docs.google.com/document/d/1LhzTYMoigtw\_VkQ-ILvls6XdSbKrfQqMDlQhKQZPw3U/edit

**Title:** Analyzing Weight loss/gain in Health and Nutrition

**Name:** Glorine Previlon

**Preceptors:** Direct Supervisor: Nancy Melendez, Health & Nutrition Coordinator

Project Supervisor: Grace Blanco, Director of Ironbound Community Corporation

**Agency:** Ironbound Community Corporation- Early Learning Center

**Purpose:** To analyze weight loss and gain of children at the Ironbound Early Learning Center in order to prove that the Head Start Health & Nutrition program is a success.

**Significance:** According to the Centers for Disease Control and Prevention 25 percent of all children aged 2 to 18 years now meet the criteria for being overweight. Overweight and obese children are at greater risk for major health issues such as Type 2 diabetes, high blood pressure, joint pain, high cholesterol and cardiovascular disease. The significance of this project is to show that health and nutrition program that is already implemented at the Ironbound Early Learning Center is indeed a success.

**Method/Approach:** A body mass index (BMI) assessment was conducted by the Health & Nutrition Coordinator and myself in order to observe four variables; underweight, healthy weight, overweight, and obese. This study observed a total of 80 children. Of the 80 students, 61 were healthy weight, 3 were underweight, 8 overweight and 8 obese. In order to test out the health & nutrition program which includes a diet plan and healthy eating requirements, we will observe the BMI over a span of three months.

**Outcomes/Results:** Of the population size of p=80, I condensed the BMI sample size to n=29. Of those who were at a healthy weight the initial average was 36.67 lbs, overweight initial average was 42.84 lbs, underweight initial average was 30 lbs and obese initial average was 48.12 lbs. These were the initial weights at the start of enrollment. Three months later, after planning meals and diets to accommodate those who were either underweight, overweight or obese, we've observed a slight change in our initial results. Healthy weight average remained as the constant 36.67 lbs, overweight average decreased by approximately 2 lbs (40.12 lbs), underweight remained the same (30 lbs) and the obese average also decreased by approximately 1lbs (47.24 lbs).

**Evaluation/Conclusion:** Based off our results we can conclude that the health & nutrition program at the Ironbound Early Learning Center does indeed work. With proper education and getting parents involvement, the downfalls of malnutrition will not affect children. The results of poor nutrition can lead to major health issues such as Type 2 diabetes, high blood pressure, joint pain, high cholesterol and cardiovascular disease, which is due to being either obese or overweight. Teaching children good nutrition habits from a young age can decrease the likelihood that he/she will become overweight.

Title: Improving Staff Communication to Enhance Consistency of Patient Care

Name: Jessica Puchalski

**Preceptors:** Direct Supervisor: Abigail Obrien, Occupational Therapist

Department Supervisor: Barbara Fox, Director of Inpatient Occupational Therapy

**Agency:** St. Lawrence Rehabilitation Center, Lawrenceville NJ

**Purpose:** To analyze and assess best practices and to propose a process improvement to enhance communication between healthcare staff to optimize patient care.

**Significance:** The lack of an adequate communication system between occupational therapy staff, nursing staff and other patient care providers has a detrimental impact on the patient experience and outcome. Additionally, 37% of the high severity injury cases at in-patient settings were due to issues in communication, while intervention programs have shown improvements up to 30% in other facilities. This supports the critical need for an improved and coordinated communication method among medical staff to enhance patient care by incorporating modern technological advancements in healthcare, such as mobile apps.

**Method/Approach:** A qualitative investigation and analysis was conducted via specific questions posed to occupational therapy staff, doctors, nurses, and other healthcare providers involved in patient care at St. Lawrence Rehabilitation Center. The line of questioning was focused on communication issues and barriers among the healthcare professionals in order to determine specific reasons for miscommunication and communication breakdown. Additionally, an online review was conducted to explore and identify potential innovative solutions to improve communication. Throughout the information gathering process, the findings were recorded and each of the individual issues and barriers were reviewed and assessed to determine potential solutions.

Outcomes/Results: Information gathered from the staff interviews and online review highlighted a number of potential causes for communication failure. These underlying causes include time constraints, lack of understanding of roles, overlapping responsibilities, and competing priorities. It was also observed that the currently employed communication methods and tools, such as writing instructions on the patient boards in their rooms, are inadequate, as they are often overlooked or ignored. Additionally, although conducting rounds is beneficial, time constraints make this method of communication suboptimal.

**Evaluation/Conclusion:** In order to overcome the diverse array of barriers to communication among healthcare professionals, and specifically the communication between occupational therapists and nursing staff, modernization is essential. It is critical to utilize modern, efficient technology rather than the current outdated or inefficient communication methods used at St. Lawrence Rehabilitation Center. A healthcare communication mobile app to enhance communication and collaboration would benefit healthcare providers and patients and would ensure better continuity of care. Such apps, including the HIPAA compliant Vocera app, would be an ideal solution for filling this communication gap, as it is currently being successfully utilized at over 1,400 facilities worldwide

Title: Data Analysis of Blood and CSF Donations for Alzheimer's Disease Research

Name: Komal Rahman

**Preceptors:** Direct Supervisor: Igor Grosman, Clinical Research Coordinator

Project Supervisor: Jeffrey T. Apter, MD, Medical Director

**Agency:** Princeton Medical Institute

**Purpose:** To increase the number of donations by analyzing the demographics of donors of blood and cerebrospinal fluid for Alzheimer's Disease research to implement a successful recruitment plan.

**Significance:** Alzheimer's Disease is the most common form of Dementia. Currently there is no cure for this disease, it is essential for extensive research to be conducted. According to the Alzheimer's Foundation of America, the amount of Americans diagnosed with this disease will double in the next 30 to 40 years; that is about 20% of the United States population being diagnosed with Alzheimer's Disease. It is imperative that a community comes together and participates in the Alzheimer's Disease research in order to search for a cure.

**Method/Approach:** For a successful recruitment plan for Alzheimer's Disease research donations, it is in the community's, or on a bigger scale, the world's best interest to develop a strategy in which the participant feels like what they are being asked to do is of value. First, it was important to analyze the data from patient records at Princeton Medical Institute of the existing donors. Demographics, such as race, gender and age, were taken into account to better determine a strategy in which those who have donated the most were the main focus.

**Outcomes/Results:** After compiling the data, it was clearly shown that more Caucasian females in their 60s to 80s were donating for this research. Based on the review of data, it was determined that this specific population is more likely to return for future donations. There were 34 subjects (n=34) of which 18 subjects were female (53%) and 16 were male (47%). With this being said, a gender cannot be targeted or focused on in terms of recruiting for more subject participation. Secondly, when analyzing race, there were three different categories: White, Black and Mixed. 85% of the subject population were white subjects both male and female (n=29) whereas black subjects were only 12% (n=4), Mixed was 1 subject or 3% of the population. Lastly, ethnicity categories consisted of only Caucasian and Hispanic. This also had a big difference in the numbers in which 85% of the subject population were Caucasian (n=29) as compared to the other 15% being only 5 subjects.

**Evaluation/Conclusion:** To better determine if the project was a success, a satisfaction survey will be distributed to subjects that have participated. The survey will ask a series of questions to inquire what the subject liked or disliked about the donation process and if they would participate in future donations for Alzheimer's research. Another approach is to target the populations which are the minority by conducting a survey to ask their suggestions in order to obtain more donations from the targeted population along with an appreciation note. When notes of gratitude are sent, people feel valued which results in more donations from subjects willing to participate in the search of finding a cure for Alzheimer's Disease.

**Title:** Formation of Youth Council for Consistent Youth Involvement

Name: Richa Rai

Preceptors: Terrance Johnson, Senior Regional Development Representative

**Agency:** American Lebanese Syrian Associated Charities/ St. Jude Children's Research Hospital

**Purpose:** To form a St. Jude Youth Committee to increase youth involvement in fundraising for St. Jude, and to engage the youth in the Greater New York City area.

**Significance:** Every day, St. Jude Children's Research Hospital needs 2 million dollars to operate. About 75% of these funds come from public donations. These donations are mostly from older individuals, therefore recruiting younger individuals will increase the amount of public donations. Currently, young individuals in the area are not organized into committees that aid them in fundraising. In order for them to fundraise they must reach out on their own to St. Jude. Targeting younger individuals in the area will increase funds for St. Jude, and increase their involvement in charity work.

**Method/Approach:** Two students from ten high schools in the area were recruited to join the youth committee. A proposal was written for these students to follow, and they were provided with the proper tools and information to host fundraising events at their respective schools. Weekly meetings were held to help progress event planning and formation, and to allow the students to contribute their own fundraising ideas. The first method to evaluate the success of the project was to directly compare the funds raised from the youth committee to the funds raised from young individuals in previous years. The second was a pre- and post- survey given to the committee to determine what fundraising skills they had developed as a result of being a part of the committee. The survey used the Likert scale to determine the fundraising skills gained as a result of being a part of the committee. Questions measured how comfortable the students were with hosting their own fundraising events, knowledge of how to recruit volunteers for events, and their familiarity with marketing skills in order to publicize events.

**Outcomes/Results:** Prior to the formation of the youth council, the total revenue from youth involvement in the Manhattan office was an average of \$2,000 annually. This fluctuates yearly due to a lack of consistent involvement. The formation of the youth council in 2017 generated a profit of \$5,000. These profits were achieved through multiple fundraisers held by high school and middle school students.

**Evaluation/Conclusion:** In two months, the formation of the youth council generated profits that double what is annually raised (on average). In terms of what this could do for the hospital, \$2,000 can fund one week of physical therapy, but not cover any costs of inpatient stay. However \$5,000 can cover costs for inpatient stay for an entire day or 3 weeks of physical therapy. The survey given to the council also indicated that students in general felt they had a better understanding of fundraising skills and marketing techniques.

Title: Evaluation of Recruitment Strategies Among Individuals Screening For HIV

**Biomedical Prevention Studies** 

Name: Kara Ramos

Preceptors: Magdalena Sobieszczyk, MD, MPH, Associate Professor of Medicine

**Agency:** Columbia Research Unit (CRU) at Columbia University Medical Center

**Purpose:** To develop more efficient and targeted recruitment strategies that result in increased participation into HIV prevention studies and successfully attract racially ethnic individuals in research.

**Significance:** HIV prevention studies require the recruitment of a large number of racially diverse individuals (NIH, 2016). Minorities make up only 30% of those enrolled in clinical trials that are sponsored by the NIH. A diverse sample ensures that the products that are tested are generalizable, safe and effective in the population (Fisher & Kalbaugh, 2011). Thus, reviewing current recruitment strategies could help create better methods recruiting a larger and more diverse population of individuals.

**Method/Approach:** A retrospective analysis was conducted using data from 10/1/2016 to 3/15/17 to evaluate the effectiveness of current recruitment methods among HIV-negative individuals between 18 to 50 years old who were screened for eligibility in HIV prevention studies at the Columbia Research Unit (CRU). Racial/ethnic demographic data via 3 recruitment strategies (web, in-person outreach, and referral) was extracted from CRU's database, 'CaSEi'. A total of 364 contact cards were collected and 107 individuals were prescreened by phone to determine eligibility. The primary objectives were to assess the success of the 3 recruitment strategies in engaging individuals in the screening process for HIV prevention studies and to compare the race/ethnicity of individuals via the recruitment strategies.

Outcomes/Results: In achieving racial diversity, web-based recruitment yielded a standard deviation (STD) value of 11.58; Outreach yielded a STD value of 12.54, and referrals yielded a STD value of 11.54. In achieving an increased number of prescreens, web-based recruitment yielded the largest number of contacts (227) and resulted in the largest number of prescreens, even though it had a high drop-off rate of 64%. This is in contrast to referrals which generated the fewest number of contacts but had the lowest drop-off rate (42.9%). Outreach had the highest drop-off rate from contact to pre screen (84.1%).

**Evaluation/Conclusion:** Although there was no significant difference in terms of achieving racial diversity, it seems that the most effective recruitment method was referrals (STD=11.54) while the least effective method was outreach (STD=12.54). Even though the web generated the greatest number of contacts and prescreens, the most efficient method in increasing participation in the studies was referral with a drop-off rate of 42.9%. The least effective method was outreach (84.1%). Continued efforts are needed to maintain web-based recruitment with more efforts and new ideas focused on increasing recruitment through outreach and referrals.

References: <a href="http://bit.ly/2pWrO9I">http://bit.ly/2pWrO9I</a>

Title: Social Media Analytics of the Local Community Outreach Campaigns

Name: Anjelica Ramsey

**Preceptors:** Direct Supervisor: Plyshette Wiggins, MPH, Public Health Consultant/ Coordinator

Project Supervisor: Evelyn Robles-Rodriguez, RN, MSN, APN, AOCN, Director, Outreach, Prevention and Survivorship, MD Anderson Cancer Center at Cooper

**Agency:** Burlington Camden County Regional Chronic Disease Coalition (BCCRCDC)

**Purpose:** To use social media analytics to evaluate online presence and to improve reach for future community outreach campaigns of the Burlington Camden County Regional Chronic Disease Coalition.

**Significance:** Social media analytics are necessary to track an agency's progress, and allocate time and efficiency in a marketing campaign. Although content is important, it needs to reach a target audience in order for the mission to have purpose. Analytics evaluate which social media platform receives the most traffic and when to fixate time to less popular platforms. It provides perspective of where the audience baseline is and addresses what can be done for improvement. The values synthesized will be total reach/impressions and engaged users. Where total reach is number of views via newsfeeds and engaged users the amount of clicks from the total reach pool. By observing what types of social media tactics reach and cause an "impression" on users, an agency can effectively engage with users.

**Method/Approach:** The social media platforms under analysis were Facebook and Twitter. Data was collected for this evaluation from February 26th to March 31st of 2017. Throughout the duration, post/tweets related to proclamation events, health campaigns, and informative articles were reviewed. To improve audience engagement, free merchandise was given to healthcare related students and faculty in exchange for following us on social media. After March 31st, the built-in social media analytics tool collected data, which was then exported into Microsoft Excel. Data was then analyzed to evaluate progress and implement efficient social media tactics.

**Outcomes/Results:** Facebook's week five had the highest hits at 499 total reach and 134 total users, in comparison to week one which had the baseline of zero. The grand total of the study was 1050 in total reach, or views on newsfeeds. In contrast to 34 total engaged users. On Twitter, the tweet on 3/15 had the most impressions at 53; however, the media attached tweet had the highest engagements at 4. The total sum of impressions amounted to 161; meanwhile, total sum of engagements came to 10. There were zero shares of content on both platforms.

**Evaluation/Conclusion:** Both platforms maintained a following with frequent interaction and harvesting of followers. Facebook spiked the week merchandise incentives were given, thus this method will be continued in the future.

**Title:** The Role of Resting Boxes in Eastern Equine Encephalitis Surveillance

Name: Christopher Reid

**Preceptors:** Direct Supervisor: Dr. Mark Robson

Project Supervisor: Dr. Lisa Reed

**Agency:** Rutgers Center for Vector Biology

**Purpose:** To create a fact sheet that will help to teach mosquito control agencies how to properly use resting boxes as an appropriate method of vector-borne surveillance.

**Significance:** EEE is one of the most dangerous, infectious vector-borne diseases in the United States with an approximated mortality rate of about 33% for humans and high mortality rate of 90% for horses (CDC). EEE is transmitted to horses, humans, and pigs by means of a bite by an infected mosquito (*Cs. melanura*). It is a rare disease in humans and only a few amount of cases are reported in the United States each year. According to a vector surveillance report from the Center for Vector Biology at Rutgers, in 2016 there were positive EEE mosquito pools and horses cases found outside the normal range of surveillance in the state of New Jersey (1 from Ocean County, 2 from Morris County, and 1 from Passaic County). All of the horses did not have any up to date vaccinations or any clear vaccination history at all. It it typically recommended by vets, and horse experts to maintain a positive vaccination schedule to help prevent vector-diseases.

**Method/Approach:** An informational fact sheet will be created to explain the various essentials regarding the EEE virus and the endemic vector for the EEE virus (*Cs. melanura*). It will also include instructions on how to build, position and general usage on how to use the resting boxes as an appropriate surveillance method for used to collect information on the vector.

**Outcomes/Results:** Based on the data and reports (2016) from the Rutgers Center for Vector Biology, it is evident to see that there is an increasing need for more information regarding unsuspecting vector-borne diseases and our current surveillance methods. Creating an informational fact sheet will inform a wide variety of mosquito control agencies and other public health agencies on why more people should pay more attention to serious health-threatening vector-borne diseases such as EEE. This fact sheet will be accessible to the public to read and share with not only the Rutgers University community (students, staff, and faculty) but more importantly to public health agencies who aim to protect the public through maintain ongoing mosquito control surveillance.

**Evaluation/Conclusion:** Developing a fact sheet will provide county agencies with the instructions to construct, position and general guidelines on how to use resting boxes as a mosquito surveillance method. This in turn will allow these agencies continue to monitor surveillance of mosquitoes and help protect the public from vector-borne diseases.

# **References:**

https://www.cdc.gov/easternequineencephalitis/index.html http://vectorbio.rutgers.edu/reports/vector/

**Title:** De-stressing high school scholars

Name: Kianna Rimes

**Preceptors:** Supervisor: Aaron Reevey, Mentoring Coordinator

**Agency:** Rutgers Future Scholars

**Purpose:** To create and evaluate a stress management program for high school students in the Rutgers Future Scholars program.

**Significance:** Each year, the Rutgers Future Scholars program introduces 200 first-generation, low income students in our four Rutgers home communities of New-Brunswick, Piscataway, Newark, and Camden to the promise and opportunities of a college education. Numerous studies have shown an association between social disadvantage/low SES and increased stress/ poor health outcomes among adolescents. Finkelstein and Kubzansky (2006) attribute this correlation to a lack of healthy coping mechanisms available to adolescents whose parents have not obtained a college diploma. This evidence exposes a disparity in coping mechanisms used by adolescents of low SES, who are at risk of experiencing social disadvantages, and adolescents of higher SES.

**Method/Approach:** A survey, evaluating stressors and coping strategies, was distributed to 53 high school students, aged 14-18 enrolled in the Rutgers Future Scholars program. Data collected from the scholars were organized in an IMB SPSS spreadsheet and were used to construct our intervention program. Based on the data collected, the intervention program was created to incorporate meditation, yoga, and exercise (via. A trampoline park), in order to introduce our scholars to healthy coping mechanisms used to counteract the stressors in their daily lives.

Outcomes/Results: Out of the 53 students surveyed, 43% of students rated their personal stress level as "average". When asked about specific stressors in their lives, students identified classwork (54.3%) and thinking about college (49%) as their most prominent. When asked about coping mechanisms, scholars identified "talking with friends" (51%), listening to music (77.4%), and exercise (39.6) as their primary coping mechanisms. Thirty-three students (62%) rated the effectiveness of their current coping mechanisms as "okay" or "good". Overall, 41.5% of students were interested in attending a yoga or meditation class sponsored by the Rutgers Future Scholars program.

**Evaluation/Conclusion:** Of the students surveyed, twenty students (38%) attended a RFS sponsored trip to SkyZone while none of the surveyed students attended the yoga session. Seventeen students (85%) rated their stress level at a 1 following the trip. When asked if they would be interested in participating in the activity again 90% of students expressed that they would. Looking forward, increasing attendance to de-stressing programs and intervention will be vital to the success of the program. Email and text message alerts, word-of-mouth reminders at mentoring sessions, and incentives may help increase attendance.

**Title:** Ciclovia: Open Streets for Active Living Assessment

Name: Elíz Rivera Torres

**Preceptors:** Program Supervisor: Mariam Merced, Director of Community Health Promotions

Project Supervisor: Yesenia Hernandez, Program Coordinator

**Agency:** Robert Wood Johnson University Hospital Community Health Promotions Program

**Purpose:** Review data from past Ciclovia events to facilitate and improve the participation of community stakeholders in the April 23, 2017 Ciclovia event.

**Significance:** Ciclovia is an initiative that facilitates active living and community cohesiveness by closing streets to vehicles and opening them to pedestrians and cyclists. Data from individuals attending Ciclovia in 2016 show that 50% were inspired to exercise more and 82% were inspired to walk or bike more. Community organizations such as schools, businesses, government agencies, and nonprofits support Ciclovia and its outcomes by engaging in activities focused on fitness, nutrition, art, health, and wellness.

**Method/Approach:** In 2016, focus groups consisting of New Brunswick residents made recommendations for future Ciclovias, namely the inclusion of organized sports, games for kids, food vendors, and live music. In response to focus group data, the intern contacted organizations able to deliver these activities. To standardize communication, an email template was developed for both returning and new participants of Ciclovia. Templates were adjusted based on whether the organization was going to table or host an activity station, or whether it was to provide entertainment. City departments, non-profit organizations, and Rutgers student organizations were contacted via email, and received a follow up email or a call about a week after non-response. Results for Rutgers student organizations were analyzed separately because of the nature of their response.

**Outcomes/Results:** In total, 45 organizations were contacted by the intern to participate in Ciclovia. 25 of these were local organizations; roughly four out of five (76%) confirmed their participation in the event. Out of the 19 confirmed organizations, 16 attended Ciclovia. Three organizations that had confirmed did not attend Ciclovia, while two organizations that had not confirmed did attend Ciclovia. With regards to the Rutgers student organizations, many had not previously worked with Ciclovia. This was reflected in the rate of non response: of the 20 organizations contacted, three responded to decline and three participated.

**Evaluation/Conclusion:** Previously established connections are key in Ciclovia's strong response from local community organizations. Familiarity and communication are critical in relationship continuity with stakeholders, however, they are also challenge areas in regards to involvement from Rutgers student organizations. Data collected in 2016 shows that 73% of Rutgers students did not hear of the event or did not know what is was about. Social media may be a more effective mode of communication for this demographic; an information session on Ciclovia may also be beneficial.

Title: Incident Action Guides for Initial Incident Commanders in the Hospital

Name: Jeffrey Rodriguez

**Preceptors:** Paul Mikita, Lead Emergency Management Specialist

**Agency:** Robert Wood Johnson Barnabas Health Systems, Department of Emergency

Preparedness

**Purpose:** To standardize the process of initiating the Incident Command System in the hospital during an emergency response

**Significance:** During an activation of the hospital's emergency response system, the nursing supervisor is often the initial incident commander for these scenarios. These nursing supervisors are the hospitals first response to these emergencies. In order to respond to emergencies, the Incident Command System is implemented in order to properly manage it. The Incident Command System is a standardized on-scene management concept designed specifically to allow responders to adopt an integrated organizational structure equal to the complexity and demands of any single incident or multiple incidents (OSHA, 2017). These guides will help inexperienced nursing supervisors, who are expected to act as Incident Commanders, run an incident by providing guidelines and strategic objectives that they need to meet during emergencies the hospital may experience.

Method/Approach: In order to understand the objectives that would need to be completed during an incident, I was given all of the hospital's Emergency Operations Plans (EOP) and read them in order to understand which parts of the plan would be the most relevant for the Incident Commander. The Incident Action Guide is a one-page sheet that is divided into four time frames; Notification - HCC Activation, HCC Activation - 30 Minutes, 30 Minutes - 2 Hours, 2 Hours - 6 Hours. Within these time frames, there are four main objectives in which the Incident Commander should be cognizant about; Incident Notification, Life Safety, Incident Stabilization, and Next Stage Planning. Strategic tasks from the EOP are then placed relative to what objective they would fulfill. Careful consideration was made to ensure that the tasks were strategic and not tactical based. A test was then administered to the nursing supervisors in the New Brunswick and Somerset campuses in order to see the the effectiveness of the Incident Action Guide.

**Outcomes/Results:** In the New Brunswick campus, out of twelve nursing supervisors, eleven stated that they view the guide as an asset (91.2%). In the Somerset campus, out of nine nursing supervisors, seven stated that they view the guide as an asset (77.8%).

**Evaluation/Conclusion:** The implementation of the Incident Command System is a very important process that is necessary in order for the hospital to respond to an emergency. The Incident Action Guide serves as a supplement to nursing supervisors to help them know what tasks should be completed in order to properly respond to an incident. Both campuses showed positive attitudes towards the guide and stated that it will help them during an emergency operation activation.

Title: Hospital Policy Meets Anti-Kickback Statute Transportation Safe Harbor Requirements

Name: Daniela Roeill

**Preceptors:** Direct and project supervisor: B.J. Welsh, Chief Compliance Officer

Project supervisors: Rita Jennings, Legal Counsel. Alyssa Verderami, Associate General

Counsel and Vice President of Risk

**Agency:** Saint Peter's University Hospital, New Brunswick, NJ

**Purpose:** To develop new hospital policy relating to new local and rural transportation safe harbors.

**Significance:** Healthcare systems are now allowed to offer free or discounted transportation services. Eligible entities are not mandated to implement a transportation system, but they are now protected by safe harbors if they wish to do so. There are many restrictions to reduce the risk of affecting competition and also advertising the discounted transportation as a marketing tool. Because of restrictions, the legal department needs to develop a hospital policy and comply with the Anti-Kickback Statute and the False Claims Act.

**Method/Approach:** The project began by using the Federal Register to access the Office of Inspector General (OIG) of the Department of Health and Human Services rules and regulations. The OIG recently added an additional safe harbor to the existing transportation regulations listed under the anti-kickback statute. Reading the statute and the new harbor started the process of developing Saint Peter's hospital policy on free or discounted local and rural transportation. By creating a flowchart and PowerPoint, employees can easily understand and refer to the new policy. The policy can begin to be written and must strictly comply with the Federal Register.

Saint Peter's University Hospital (SPUH) does receive a lot of charity care patients. However, it is important that the policy is crafted in a way the hospital cannot be taken advantage of. Since transportation can be costly, it might be best to partner with a transportation company or even use vouchers. Another method of covering costs could be using donation money designated for transportation.

**Outcomes/Results:** Shuttle service is already currently available, and contains separate safe harbors than the rural/local transportation. However, the new addition to the Anti-Kickback Statute extended the shuttle service safe harbors. The shuttle service policy would be separate from the local and rural transportation policy. This project is strictly the rural and local free/discounted transportation. After proposing the policy to various staff members, the team agreed it would be best for policy to be broad, but still strictly complying with the safe harbor. We also agreed to start contacting companies to determine the costs. After contacting several transportation companies, I have not heard back from any. Regardless, the policy must be approved before implementation and both are necessary to provide the transportation.

**Evaluation/Conclusion:** In conclusion, a hospital policy must be approved and implemented if Saint Peter's would like to provide free/discounted transportation services. It is important to create broad, yet strict hospital policies in accordance with the Anti-kickback safe harbor. Once the policy is implemented, it is crucial for all employees to be educated about the strict policy. For example, staff receiving phone calls for appointments must be aware of each condition. There are many strict requirements that the health system needs to comply with. Overall, I think offering free/discounted transportation would be beneficial for the hospital and for patients. A majority of SPUH patients are women and children, and it would helpful for patients who require medically necessary care to be provided with transportation.

Title: Philadelphia Office of Emergency Management Warehouse Navigability

**Improvement** 

Name: Jonathan Rogers

**Preceptors:** Logistics Coordinator: Sam Malone

Logistics Program Director: Dominick Mireles

**Agency:** Philadephia Office of Emergency Management

**Purpose:** To improve Philadelphia Office of Emergency Management logistics warehouse efficiency by changing signage, inventory logs, floor plans, and providing suggestions to simplify navigability.

**Significance:** The Philadelphia Office of Emergency Management maintains a storage facility out of a 12,000 sq. foot warehouse location in the Far Northeast region of the city. This facility houses shelter equipment including cots, access and functional needs assistive technology, portable lighting, heating, power generations, and clean water rations. When the office activates, response teams pick up equipment from the warehouse. Due to relatively infrequent visits to the warehouse, trips to the warehouse by OEM personnel are longer than necessary. With more approachable and user-friendly mapping, signage, and inventory pack logs, time spent in the warehouse and "on-location" response times will be drastically decreased.

**Method/Approach**: Multiple warehouse managers agreed to be surveyed about their operations, specifically regarding their floor plans, signage, and inventory pack logs. Their answers were considered and compiled. Participants managed a variety of warehouses including retail, industrial, and academic. It was decided that the best course of action is to "colorize" assets in groups based on their application.(ex. Health and first aid equipment would grouped in a blue section, traffic control would be grouped in a red section). The section numbers will be labeled with signage that corresponds with their color. Each asset type will be shaded on the inventory pack log according to which color its asset type was categorized under. Finally, guide lines for backing trailers into the warehouse will be painted on the ground.

**Outcomes/Results:** Philadelphia OEM Logistics is in the process of planning a reorganization of their logistics warehouse. The logistics department will implement their updated, colorized floor plan when the warehouse reorganization is complete. This will likely be implemented throughout the summer. We anticipate the new floor plan will drastically decrease loading, mobilization, and on-scene response times.

**Lessons Learned/Conclusion:** Being a logistician/warehouse manager requires a great deal of mechanical aptitude and office skill. Detailed resource inventory and requests must be recorded to maintain accountability. Due to the nature of work, projects may be disjointed because of the potential of emergencies, reorganizations, audits, equipment acquisition and various other factors. It is important to prioritize projects and consider all options without abandoning previously assigned tasks.

Title: Risks Associated with Surgical Site Infections After Cesarean Delivery

Name: Marisa Rosano

**Preceptors:** Direct Supervisor: Gloria Bachmann, MD Obstetricians and Gynecology

Project Supervisor: Adrienne Simonds, PT, PhD & Charletta Ayers, MD, MPH

Agency: Robert Wood Johnson University Medical School, Department of OB/GYN, Women's

Health Institute

**Purpose:** Review of the literature investigating the risks associated with surgical infections after Cesarean Section delivery.

**Significance:** According to the CDC, surgical site infection is defined as "an infection occurring within 30 days from the operative procedure in the part of the body where the surgery took place". The prevalence rate of post-Cesarean infections occurring after hospital discharge is 27 to 95%. Postoperative infections result in pain, drainage from incisions, difficulty with mobility and lifting activities and may negatively affect the development of mother-baby attachment. Difficulties with mother-baby attachment have been shown to contribute to poorer psychological health of both the baby and mother. The most effective measures to reduce risk of surgical site infection (SSI) are preventive interventions.

**Method/Approach:** PubMed and CINAHL databases were searched from February to April 2017 using the search terms "post-operative", "Cesarean Section delivery" AND "SSI." Exclusion criteria consisted of articles not directly related to Cesarean Section and those not conducted in the United States healthcare system.

**Outcomes/Results:** A total of 15 articles were retrieved matching search criteria. Six articles were excluded based on the above criteria. The remaining 9 articles included risk factors associated with SSI, preventative strategies and surveillance methods. The core findings were certain risks that are associated with complications are body mass index, younger in age, tobacco smoking, remote site infection, emergency Cesarean Section, socioeconomic status, prenatal care, diabetes mellitus, preeclampsia, and race.

#### **Evaluation/Conclusion:**

Women need to be educated on signs of infection and how to prevent an infection from occurring. All of the noted sources stated that infections are mainly caused from the patient and their lifestyle, rather than the surgery performed. There was not a specific technique that helps lower the prevalence rate of surgical infections. Women who get a Cesarean delivery should be given educational pamphlets and instructions on how to maintain a clean and healthy scar. Women who smoke, have a high BMI associated with poor quality diet, have comorbidities may be at a higher risk of SSI after a Cesarean delivery.

Title: Analyzing Patient Portal Usage at Memorial Sloan Kettering Cancer Center

and Encouraging More Patients to Sign Up

Name: Katherine Rossi

**Preceptors:** Direct Supervisor: Meredith Sabia, Clinical Practice Supervisor

Project Supervisor: Meredith Sabia, Clinical Practice Supervisor

**Agency:** The Sydney Kimmel Center for Prostate and Urologic Cancers at Memorial

Sloan Kettering Cancer Center

**Purpose:** To analyze the amount of patients currently using the "Patient Portal" at Memorial Sloan Kettering Cancer Center (MSK) and explain its benefits to encourage more patients to join.

**Significance:** MSK provides exceptional cancer care to millions of patients yet only a small percentage of the patients use the portal. The portal is a free tool where patients have the ability to connect with their doctor, complete forms online, check future appointments and lab results, learn about treatment options, and more through a convenient, safe and secure environment. By utilizing the portal and encouraging more patients to sign up for it, MSK has the ability to reduce the number of miscommunications between the clinical team and the patient. The portal also allows for patients to take more control of their cancer by accessing their care even when they are not at MSK.

**Method/Approach:** A review of the data collected by MSK on Patient Portal usage was completed and used to assess the number of patients that are currently using the portal. Data has been collected on Patient Portal usage since November 20, 2006 and is tracked daily. Data was collected on the number of registered patients that use the portal which allowed me to see who's account is active and who can sign up. The week of April 24th was patient experience week at MSK where patients had the opportunity to learn about the portal and sign up for this tool as they entered any MSK location. By using the data about portal usage I analyzed the correlation between "no show" visits and patients that are not registered to use the portal. Also, I used the portal data tracking system to see how many patients signed up each day from April 24th to the 27th.

**Outcomes/Results:** As of April 1, 2017, only 113,166 patients have been registered to use the Patient Portal. In total, there are 1,529,882 patients on record for MSK therefore only 7.39% of the patients use this tool. On Tuesday April 11th, the correlation between "no show" visits and patients that are registered to use the Patient Portal was tracked. Of the 8 patients that did not attend their appointment, 5 of them were not Patient Portal users (63%). Also, during patient experience week 705 patients signed up to use the portal; 159 patients on Monday, 211 on Tuesday, 194 on Wednesday, and 141 on Thursday (data only available from Monday to Thursday). From April 1st - 27th 1,349 patients registered to use the Patient Portal. At the end of my research, a total of 114,515 patients use the portal at MSK (7.48%).

**Evaluation/Conclusion:** Patients had not previously signed up to use the portal for many different reasons. When asked during patient experience week about not signing up before, patients responded with: "I thought that it was harder to sign up" and "I figured registering would take a long time". I have concluded that when given the opportunity to be assisted face to face with registering for the portal, almost every patient signed up and has had positive reviews about the tool.

**Title:** Versus Badge Patient Monitoring System Assessment

Name: John Ruskey

**Preceptors:** Direct Supervisor: Sharon Feltes, Staff Director

**Agency:** Memorial Sloan Kettering Cancer Center

**Purpose:** To create a plan to retrieve lost badges from patients in the most efficient manner in order to maintain proper analyzation of each patient's geolocation during each clinic visit.

**Significance:** Over the past few years, regulations and declining reimbursement have caused physicians to have less time to spend with each patient during their visit. The Versus system aims to increase patient flow using Real Time Locating Systems (RTLS). This system also allows Memorial Sloan Kettering to analyze trends during the patient's experience such as: overall wait times, visit times, comparing operational performance against benchmarks, and optimizing resource utilization. During the implementation process of the Versus Badges, many patients have not returned them within the healthcare facility. Due to their expense, MSK can not continue to purchase more of the badges. Therefore, our team wishes to implement a plan to record and track lost badges while also creating a system to ensure fast and efficient retrieval of them as well.

**Methods:** The check in and check out desks, as well as the SAII's assigned to each clinician were instructed to take several measures in order to remind each patient about returning their badge after their clinical visit. The agendas included a scripted explanation that they were to give each patient in order to ensure that they understood the purpose of the badges as well as the importance of their return. The clinics that this applied to were Head and Neck, Skull Clinic, Lymphoma, and Myeloma. Later on, if patients still forgot to return their badges, the Versus Champion team created an excel sheet to record each lost badge. After this, their clinician's Session Assistant would need to contact them in order to update them on the situation. A prepaid packet would then be sent to their home to retrieve each badge in the most efficient manner possible without inconveniencing the patient.

**Observations:** Although exact data were not able to be shown due to conflicts with patient privacy, there was a significant increase in the number of returned badges after the implementation of the newly implemented agenda and recording spreadsheet. The new process allowed the Real Time Locating System to record 100% of patient's geolocation after the second week of implementation. This clearly seemed to have a direct correlation with the efficient change in the badge retrieval process.

Conclusion: As mentioned before, after the second week of the implementation of the new agenda, the Real Time Locating System was restored to recording 100% of patient visits. This number was drastically reduced beforehand due to the reduced supply of available badges. Although the Real Time Locating System is working optimally again, the Versus Champion team will still strive to obtain every badge possible in order to reduce the workload of badge refreshing on Session Assistants residing in the check in desk.

Title: Evaluating Program Effectiveness of SISTA (Sisters Informing Sisters About Topics on

AIDS)

Name: Labiba Salim

**Preceptors:** Direct Supervisor: Jodi Riccardi, Senior Director of Program Development

Project Supervisor: Jocelyn Perry, Prevention Team Leader

**Agency:** Hyacinth AIDS Foundation

**Purpose:** To educate African American women (ages 18-29) about the importance of condom use and the prevalence of HIV/AIDS through group-level prevention methods in the form of interactive and educational workshops.

**Significance:** In the United States, African Americans are the most susceptible demographic to contract HIV. According to the CDC, the number of African American women diagnosed with HIV has fallen, but is still high compared to women of other races and ethnicities. To further illustrate this disparity, 4,524 African American women were diagnosed with HIV in 2015 compared to 1131 Hispanic/Latino women and 1,431 White women. One of the ways the large scale numbers of those diagnosed with HIV can be explained is by a lack of awareness and education regarding HIV/AIDS. The SISTA program aims to educate African American women about HIV/AIDS and methods to safer sex in small group-level settings. Prevention approaches such as SISTA seek to maximize HIV prevention and education while minimizing the spread of disease.

**Method/Approach:** Two women's shelters within Middlesex county were contacted in advance to attain permission and sign off on a Memorandum of Agreement (MOA) for the facilitation of the SISTA program. For each SISTA site, a schedule was created-- one 2-hour session per week for five weeks. In order to measure HIV risk, a pretest was administered to each client prior to the first group session and a posttest was administered to each client following the fifth group session. At the end of the program, pretests and posttests were scored and analyzed to measure the change in HIV risk for each client and evaluate program effectiveness.

**Outcomes/Results:** By the end of both SISTA groups, all clients were marked with a decrease in HIV risk. The clients in Group I and Group II averaged a 67% and 28% decrease in HIV risk, respectively. Group I had a 86% client retention rate and Group II had a 100% client retention rate.

**Evaluation/Conclusion:** The tracked decrease of HIV risk in both groups reflects upon the knowledge gained between the first and fifth session of the program. Through the decrease in HIV risk, the increase in client knowledge, and the high client retention rate, the SISTA program is evaluated to be effective. Future plans include to reach out to more at-risk African-American women, provide more incentives during group sessions, and collect more data.

 $\frac{https://docs.google.com/document/d/1y\_oSA-qQizivzD4Wa5Hg1jdztqUoZr9p2L-65q1f4gc/edit?usp=sharingz}{}$ 

**Title:** Community Health Improvement Plan

Name: Haja Sannoh

**Preceptors:** Serena Collado, Director

**Agency:** RWJUH Community Health

**Purpose:** To evaluate the parks with walking paths in Somerset County and increase the awareness of the existing built environment for biking and walking (e.g sidewalks, walking trails, complete streets, and biking lanes).

**Significance:** In New Jersey, the current adult obesity rate is 25.6%, and the child obesity rate is 15.3%. New Jersey residents are unaware of their surrounding resources and therefore lack physical activity in their daily schedules. In addition to this, some communities are unsafe and therefore, people choose to stay in the house because they don't know of any alternative parks to go to. Community health at RWJBH plans to improve the health of Somerset County residents by encouraging supplementary physical activity in the community.

**Method/Approach:** After research and analysis of the accessible parks in Somerset County, we will visit their parks, evaluating the safety and walkability of them. We plan on observing the safety of the walking paths, and if it is suitable for children, elderly people, and handicaps. We will also measure the lengths of the paths to provide people with an idea of how long they can run for. We will also take photographs of the parks so that people can have a visual representation of that the parks look like. We will then put this information on our Healthier Somerset website so that people can access it from home.

**Outcomes/Results:** After looking at a lot of the parks in Somerset, we have noticed a few problems. For one, a lot of the parks in Somerset County do not support handicap people. For example, a path would go straight and flat for a few and then rise at an angle that is too high for handicap people. Our health plan is not only for advantaged people, but for all Somerset County residents, so this observation was an issue for us. In addition, proper signage was not available at the parks. We have noticed that the parks signs mostly consisted of rules. People want to know different kinds of things like how long a trail is, where it starts to get difficult, and where it leads to. They also did not include progress marks which is important for people who want to know where to stop and turn around. Lastly, we noticed that there were no seats available for people to rest during their walk.

**Evaluation/Conclusion:** In conclusion, we have completed part of our CHIP 2.5.4 project which was identify walking paths in Somerset County and create a generalized information source for the entire County. However, most of the visited paths do not include signs and are more suitable for children and young adults. For this reason, we need for the towns to include signage of the difficulty of the path for the walkers. Our CHIP goal 2.5.2 was to increase signage around biking, running, and walking which is a process that was too long to complete within the 225 hours. The Community Health team RWJBH ill continue to work on this CHIP goal to create a more walkable/rideable environment for everyone.

Title: How Availability of Electronic Tools Impact the Collection and Use of Psychosocial

Information in the Developed and Developing World

Name: Jagpreet Sant

**Preceptors:** Charles Senteio, Assistant Professor in SC&I, Department of Library and Information

Science

**Agency:** Rutgers University, New Brunswick, NJ

**Purpose:** To describe how electronic tools influence collection and use of psychosocial information which are integral to patient care.

**Significance:** Practitioners consider psychosocial information, along with other clinical data, to make informed decisions about a patient's health. The patient is the primary source of this psychosocial information, but this vital information cannot be considered if it is not accessed and used. Current Electronic Health Records fail to capture this information sufficiently because they are designed to record structured, clinical data.

**Method/Approach:** Results were used from 2 studies as well a current review of the literature on EHR collection and use of psychosocial information. The first study used physician interviews and an online survey administered to practitioners to examine the frequency of which respondents had the psychosocial information they needed. This survey was taken by 39 primary care physicians and 129 Nurse Practitioners & Diabetes Educators. Clinical decisions measured in this survey on a Likert Scale include: Medications, Making Recommendations, Other Decisions, Target Levels of Control, Making Referrals. In the second study, a physician-researcher observed how Nigerian primary care physicians used technology to connect with their patients, collect, and use psychosocial information.

**Outcomes/Results:** For the practitioner survey, (n=168), psychosocial information was used for clinical decisions "Always" or "Often" 59% (3.7/5) of the time. For making recommendations, 58.9% of the responses indicated "Always" or "Often" (3.69/5). Other Decisions recorded 3rd on the Likert scale (3.67/5; 67.3%), followed by Target Level of Control (3.63/5; 54.8%) and finally, Making Referrals (3.62;54.9%). From the study conducted on Nigerian medical care, HIT competencies were only available in facilities which were well-resourced. They indicated that they did not have policies in place guiding health care as USA does. They also lacked resources and infrastructure which prevent them from accurately recording clinical data.

**Evaluation/Conclusion:** More than half the practitioner responses for the initial study indicate that psychosocial information is available for medication related decisions. The second study showed physicians used ICTs within patient communities as a key mechanism of patient engagement. Psychosocial information is distinct from other forms of clinical data. It's specifically used to help inform referral decisions and facilitate information across a team. Barriers to collection and use include design of the EHR and lack of confidence in data accuracy.

**Title:** 80 Percent by 2018

Name: Jasmine Santos

**Preceptors:** Direct Supervisor: Michele Caposella, Senior Manager, Hospital Systems

**Agency:** The American Cancer Society, Cedar Knolls, NJ

**Purpose:** To raise colorectal cancer (CRC) screening rates to 80% or higher by the year 2018, through marketing initiatives and program/event collaborations with local and national stakeholders.

**Significance:** Achieving the 80% by 2018 goal means that nationally there will be 277,000 CRC cases and 203,000 CRC deaths avoided by the year 2030. In the state of NJ screening rates stand at 62.1% meaning that 767,900 individuals will need to be screened to reach the goal. But if it is met, 8,721 cases and 6,391 deaths will be avoided. Currently, CRC is the second most common cause of US cancer deaths when men and women are combined as well as, the third most common cause of cancer in men and women. The American Cancer Society along with hundreds of other CRC stakeholders, have signed the pledge to eliminate CRC as a major public health problem and this is possible through the success of 80% by 2018.

Method/Approach: Centering promotions around the month of March, Colorectal Cancer Awareness Month, ACS and it's various health partners came together to sponsor health events and meetings across the state. In northwest NJ, Morristown Medical Hospital put together 5 events to support the 80% by 2018 campaign. Three of these events were public information seminars, one was an in-house webinar, and the last was "Wear Blue Day". In addition to local efforts, ACS conducted the first annual NJ Colorectal Cancer Stakeholders meeting. All of these events shared the common purpose of the campaign to spark change by: moving consumers to action, supporting systems change, supporting policy change, and maintaining the momentum.

**Outcomes/Results:** Community events averaged about 30 attendees while the Stakeholders meeting brought in around 50 attendees. Local initiatives were focused on raising awareness about CRC and the various screening methods that exists. The focus of the stakeholder's meeting was to discuss the current state of CRC in NJ and discussion amongst the group was very informative to all. The meeting produced action steps for the future and topics to discuss such as: open-access, patient education, and patient engagement strategies.

**Evaluation/Conclusion:** Evaluation reports of all March events were extremely positive. All of the individuals involved in the planning were very thorough and gave very informative and engaging presentations, resulting in the positive results. In regards to the stakeholders meeting, attendees reported the quality of the event as excellent and nearly everyone had said they would attend the next meeting. The 80% by 2018 movement is gaining a lot of support to one day meet the goal.

Title: Increasing Accessibility to Self-Management of Chronic Disease Programs in

Middlesex County

Name: Millie Savaille

**Preceptors:** Margaret Drozd, MSN, RN, APRN-BC, Director, Community Mobile Health Services;

Zachary Taylor MEd, CHES, Coordinator, Community Health Improvement Plan

**Agency:** Community Health Services at Saint Peter's University Hospital

**Purpose:** To identify target locations and increase the number of individuals participating in Stanford's Chronic Disease Self-Management and Diabetes Self-Management Programs in Middlesex County.

**Significance:** According to the 2016 Community Health Needs Assessment, roughly 78,007 people are living with diabetes and 192,568 people are obese in Middlesex and Somerset\* Counties. Studies show self-management programs such as Stanford's Chronic Disease Self-Management Program (CDSMP) and Diabetes Self-Management Program (DSMP) aid in decreasing hospital and emergency room visits among national CDSMP participants. These evidence-based programs assist in introducing health improvement strategies in workshops of ten or more participants and has been proven to reduce health care costs nationally by saving \$3.3 billion if the programs only reach 5% of the population. In the 2016 Community Health Improvement Plan, it was identified increasing the number of organizations offering the programs and participants will aid in decreasing the prevalence and severity of leading chronic health conditions affecting the county. This community outreach will target senior centers, libraries, and faith-based organizations.

Method/Approach: The project began by contacting the Middlesex County Office of Health Services (MCOHS) regarding implementation of CDSMP and DSMP programs in the county. A plan was developed to achieve the goal to increase the number of programs and individuals participating in CDSMP and DSMP. Data was collected and analyzed on the total number of locations and the total number of individuals that participated in Stanford's CDSMP and DSMP from the year 2015 and 2016 in Middlesex County. Locations of the programs were plotted on a map and the geographic areas in the county that lacked these programs were identified. In targeting these specific geographic areas of Middlesex County, the organizations identified were e.g. Jamesburg Senior Citizen Center and South River Office on Aging that could serve as host sites for the program in these areas.

**Outcomes/Results:** Contacted eight organizations on their interest in implementing either CDSMP or DSMP programs. Of the eight organizations, three indicated they were interested in the implementation of either program. The organizations were put in contact with the MCOHS as well as linked to the CDSMP and DSMP listserv, which details locations, dates, and types of programs offered. The listserv also includes data on the number of individuals enrolled and have completed the program.

**Evaluation/Conclusion:** A report will be conducted at the end of 2017 by MCOHS and the CHIP evaluation team regarding implementation of the CDSMP and DSMP programs in the identified geographic areas. The report will look at whether the intervention helped close the gap by examining the data from the programs that were implemented in 2017 as compared to the data drawn from 2015 and 2016. It will include the number of participating programs, locations, and participants. The results from the report will determine if engaging community organizations through direct and targeted efforts was successful in addressing chronic health conditions in Middlesex County.

Title: Improving the Patient Experience at Memorial Sloan Kettering Cancer Center

Name: Samantha Savidge

**Preceptors:** Clinical Practice Supervisor: Margot Lachaud-Richard

**Agency:** Memorial Sloan Kettering Cancer Center

**Purpose:** Provide exceptional patient care during visits and improve patient's moral and attitude during their time at the hospital.

**Significance:** Cancer is the second most leading cause of death in the United States. There is never a shortage of clinical trials and broad range research being conducted at Memorial Sloan Kettering (MSK). Since 1884, MSK has been providing patients with cancer treatment while making all efforts to better their health. With the cohesive workflow of a patient's care team, strides can be taken to aid the patient for a successful treatment. At MSK, it extremely important that every step of a patient experience is as smooth as possible. MSK sees nearly 137,000 patients per year.

Approach: This project will demonstrate ways to improve the workflow and increase patient satisfaction at the Bone Marrow Transplant and Leukemia service. We will analyze different ways that Session Assistants (SA) can work together to best accommodate the patient and assure an individualized experience. We will have four SA's working at the A elevators for check-in: two mobile and two stationary. The mobile SA's will be bringing patients directly to their suite, while simultaneously checking them in for their appointment. All paperwork, urine kits, labels and forms to be completed for the day will be pre-printed and stored at the elevators. Upon arrival, patients will be educated about their visit, given necessary paperwork and a urine cup, if needed. To alleviate pending work, each SA will have a two-hour rotation in Suite 2 twice a week. If the SA has no pending work, that time in Suite 2 will be dedicated to helping with dispositions and assisting any suite within the service throughout that time frame.

**Best Practices:** Workflow is always something that can be improved. Increasing efficiency and minimizing wait times is something that will increase patient satisfaction. If SA's are working cohesively to improve every experience, together they can boost morale and attitude among our patients. During the implementation of this new workflow, the most efficient practices was preparing urine kits with labels, prior to patients' arrivals. This eliminated about two minutes of wait time and aided the SA in correctly distributing sample cups.

Lessons Learned: At Memorial Sloan Kettering, our goal is to win the cancer battle. As employees, we want to minimize the burden that cancer is having on our patients' lives. No special treatment is necessary; it just consists of being pleasant and genuine toward patients. Forming bonds with patients during this time in their lives is truly a privilege. When patients are frustrated or upset, remaining calm and professional is necessary. We know that some days will be more difficult than others. To ease the stress of everything else going on in their lives, it is our responsibility to provide exceptional care and assure our patients are always the priority.

Title: Educating on the Importance of Preventing Falls and Fractures in Osteoporosis Patients

Name: Kelly Schriefer

**Preceptors:** Direct Supervisor: Gloria A. Bachmann, MD

Project Supervisor: Gloria A. Bachmann, MD

**Agency:** The Women's Health Institute at The Rutgers Robert Wood Johnson Medical School

**Purpose:** To analyze the risk of falls and fractures in osteoporosis patients and produce educational material in the form of a pamphlet and PowToon to demonstrate the importance of balance exercises as prevention.

**Significance:** According to the International Osteoporosis Foundation, currently, there are almost 44 million women and men in the United States that are diagnosed with osteoporosis. People with osteoporosis experience almost 9 million fractures a year due to falls. It is projected that by year 2050, incidence of hip fractures in persons with low bone mass will increase: 240% in women and 310% in men. Increasing the strength of weak muscles and fixing the errors with postural alignment to enhance balance is necessary for decreasing falls and corresponding fractures in osteoporosis patients. Evidence-based exercise regimens will produce these necessary improvements with muscle and posture.

**Method/Approach:** To utilize various scientific journals and peer reviewed sources to research the significance of education and prevention for falls, and how numerous exercises can prevent these falls and fractures in many osteoporosis patients. Creating educational tools, such as an easy to distribute pamphlet or video, will enhance the education on an issue that affects so many people every day. The informational pamphlet and PowToon contain statistics about falls and fractures when exercises are used as prevention, and some simple exercises that can be done to enhance a person's balance.

**Outcomes/Results:** Data supports that exercise enhances the balance in osteoporosis patients, which help prevent falls. It was proven that exercises help prevent fractures when patients fall. Due to the strengthening of both the patient's muscles and bones. With easily distributed education on the prevention of falls in osteoporotic persons, through exercise, falls and fractures will likely decrease.

**Evaluation/Conclusion:** In the literature, research has found that with proper balance-enhancing exercises, falls causing serious injury can be reduced by 43% and broken bones due to falls reduced by 61%. Not only did the exercises prevent falls, but they prevented injuries when participants did fall. By distributing the informational pamphlet and PowToon video, osteoporotic people will learn the importance of enhancing balance, strengthening muscles, and improving posture in order to prevent falls and fractures.

**Title:** Expanding Awareness and Promoting Action for Elder Justice Through Community

Health Worker Education

Name: Karen Sepulveda

**Preceptor:** Ricca Prasad, Program Assistant

**Agency:** Camden Coalition of Healthcare Providers (CCHP)

**Purpose:** To educate patient-facing staff on the scope, screening and reporting of elderly abuse, intervention strategies and relevant resources.

**Significance:** The Camden Coalition of Healthcare Providers serves the social and medical needs of complex care patients. Much of their work is done in the community at patient homes, and interventions may involve participation of patient family members. The patient-facing staff of CCHP have frequent opportunity to assess for elder abuse in community settings. CCHP will benefit from the increased capacity of frontline staff to screen for elder abuse and implement strategies to support non-prosecutorial interventions for patients who do not meet New Jersey legal criteria of "vulnerable adult".

**Method/Approach:** A training pre-design survey was conducted to assess for staff experience and pain points in addressing issues of elder abuse. Additionally, a literature review of academic studies and multidisciplinary professional resources was completed to inform elder abuse training. Once designed, the training was reviewed by associate clinical director Renee Murray, RN and behavioral health consultant Dr. Karen Rentas. To determine efficacy of the training, attendees were requested to complete an anonymous post-training questionnaire.

**Outcomes/Results:** Qualitative assessment revealed promising results. Ninety percent of attendees reported the training was well-suited to their profession and assisted in their professional development. Ninety percent reported they are better informed on the recognition and reporting of elder abuse and 90% felt better equipped to respond to suspicion of elder abuse.

**Evaluation/Conclusion:** Elder abuse training for patient-facing staff is warranted to address this drastically underreported crime. Frontline staff benefit from concrete strategies and resources relevant to their work with elders residing in the community. Time constraint on the training was a limiting factor. Professional insight and academic studies of elder abuse comprise a large body of work. The definition of types of elder abuse and warning signs alone could easily have taken up the allotted one-hour training time. To maximize efficiency, trainings must be tailored toward practical, working knowledge for social workers and community health nurses.

Title: To Analyze the Workflow of the Clinical Suite and Success as a Session Assistant

Name: Laxy Shah

**Preceptors:** Practice Leader: Corrine Clauss

Clinical Practice Supervisor: Katherine Girardi

**Agency:** Memorial Sloan Kettering Cancer Center

**Purpose:** To analyze how workflow and communication within a clinical suite provides an easier transition for patients between appointments through the support of the session assistant.

**Significance:** Memorial Sloan Kettering is the nation's first cancer hospital and since its opening, has been recognized for its exceptional patient care. According to US News and World Report, Memorial Sloan Kettering was noticed as one of the top two cancer institutes in the nation. In 2016, more than 1.6 million people were diagnosed with cancer in the United States. As a leading research and technological based hospital, MSK provides their patients with the best patient care. Patient care begins and ends with conversations that allow the patient to feel comfortable even in the most unpleasant and life changing situations. Communication and support within the whole team in each clinical suite allows for a smoother transition for patients between the several appointments they may have for any given day within the hospital.

Approach: Over a several week period, observations were noted of how the front team and back clinical team communicate within the Cardiology, Pulmonary, Gastroenterology, and Renal suite facilitating a smoother transition for patients. Throughout that time, new methods of communication were implemented which included the use of Microsoft Outlook Email and the MSK intranet instant messenger. Another concept the team is working on is to review orders and appointments at the end of each day for the following day to ensure that everything was inputted in the system correctly. The importance of this is to avoid delays when patients arrive for their appointments so they are not waiting for orders to be changed in order to be seen or appointments to be inputted. With the relaying of missing order sets and appointments, both the clinical staff and session assistants will be able to provide faster care to patients allowing them to have a smoother transition between their appointments.

**Best Practices:** The best observed and successful practices have been being able to communicate with the other session assistants in the back via email or online communicator which also serves as a way to communicate patient waiting time as the front session assistants serve as a liaison between the patients and the clinical staff in the back. As patients have questions regarding their appointments, questions are easily answered and relayed through the intranet.

**Lessons Learned:** It has been difficult to find time daily to review all order sets and appointments for patients arriving the following day however through careful scheduling and prioritizing, it will become an easier symptom. It will also in turn avoid patient frustration as they are waiting.

**Title:** Assessment of Community Based Developmental Screening Project

Name: Rajvi Shah

**Preceptors:** Direct Supervisor: Claire Marchetta, Research Liaison

Project Supervisor: Jill Harris, Director of Program Development Amy Norton, Coordinator of Developmental Screening Program

**Agency:** Children's Specialized Hospital, New Brunswick, NJ

**Purpose:** Analyze the impact of a statewide community-based developmental screening project, in order to determine project modifications aimed at promoting early diagnosis of developmental disorders among underserved populations.

**Significance:** In 2006-2008 in the USA, 1 in 6 children was affected by a developmental disability (DD). Children with DDs may have impairments in physical, learning, language, or behavioral areas. Although the American Academy of Pediatrics developed guidelines encouraging pediatricians to perform routine developmental screenings, <sup>2</sup> according to the National Survey of Children's Health, pediatricians are significantly less likely to solicit developmental concerns from African American and Latino parents in comparison to White parents. <sup>3</sup> Such health care disparities coupled with barriers like cost, insurance, accessibility, and language may lead to missed and late diagnoses. <sup>45</sup> Thus, community-based, bilingual developmental screening clinics were set up in underserved areas in 2012 to help address healthcare disparities in accessing care.

**Method/Approach:** Developmental screening patients' demographics, screening results, and adherence to health recommendations at one-month follow-up data were analyzed with Microsoft Excel. This analysis compared how the presence and absence of a bilingual family resource specialist (BFRS) impacted English versus Spanish-speaking patients' adherence to health advice. Data were also retrieved from Children's Specialized Hospital's (CSH) electronic medical records to determine number of at-risk patients from the clinic who sought care at CSH and their five most common diagnoses.

**Outcomes/Results:** When the BFRS was present, 57.2% of English speaking and 68.4% of Spanish speaking patients who were determined to be at developmental risk were found to adhere to health recommendations at one month post screening. Subsequent to BFRS unavailability, there was a 9.4% and 0.8% decrease in adherence rate of English and Spanish speaking patients, respectively. Data also show that the majority (61.5%) of patients determined to be at developmental risk sought further care at CSH. The five most common diagnoses identified among these patients included autistic spectrum disorder, lack of coordination, and disorders of communication, attention, and central nervous system.

**Evaluation/Conclusion:** Adherence rates were lower among English speaking and Spanish speaking patients when the BFRS was absent. Higher adherence rates may be achieved by reinstating the BFRS. The clinics also appear to be effective in identifying children with DD, as the most common diagnoses identified among this population are consistent with the top DD generally identified in children.

**Title:** Impact of Nutrition Education on New Brunswick residents

Name: Areeba Shaikh

**Preceptors:** Susan Stephenson-Martin, Senior Program Coordinator Central Jersey Region

**Agency:** Supplemental Nutrition Assistance Program - Education, Rutgers Cooperative Extension

**Purpose:** To provide nutrition education at an elementary school in New Brunswick in order to improve eating habits of the children and analyze the impact of education programs through pre and post tests.

**Significance:** According to the U.S. Department of HHS, a typical American exceeds the recommended intake of fats, sodium, sugar, and eats less than the recommended amount of vegetables, fruits, and whole grains etc. Being healthy constitutes different aspects of life, eating nutritiously being one of them. It is essential to consume proper foods and maintain a healthful diet at all ages and nutrition education helps achieve that goal. According to the CDC, African American neighborhoods are likely to have more bodegas with less healthy food options than white neighborhoods. Such is the case in many underserved areas throughout the country, like parts of New Brunswick, NJ. With 43.8% of New Brunswick population below the poverty line and Hispanics comprising of more than half the NB population, nutrition education programs in these areas serve to introduce the public to the importance of having a proper and healthy diet. This internship focuses on an elementary school in NB with a large Hispanic population, a group which is affected by compromised nutritional resources.

**Method/Approach:** The project consists of a six-week nutrition education program provided for 3rd graders at Lord Stirling Elementary School. Each week consists of a new lesson that is covered using materials from a youth curriculum called *Show Me Nutrition*. Each lesson plan consists of a short lesson about a particular general nutrition topic like Proteins, or Fats and a number of activities to go along with the lesson, which help reinforce the information provided to the children. A pretest in the first class and post test in the sixth class respectively is disseminated with questions pertaining to the eating habits and physical activity related to the students.

**Outcomes/Results:** The project is based on a schedule developed by NJ-SNAP Ed and hence will be reaching its conclusion at the end of April. However, the activities following each lesson and review of previous lessons in each class ensure the positive impact of the nutrition education in terms of students sharing the increasing amount of healthy food choices they make and physical activity in daily lives.

**Evaluation/Conclusion:** Eating healthy is a critical part of living a wholesome life and educating public, especially children, about benefits and options for healthy eating helps achieve that. Based on previous nutrition classes and the progress in completed sessions, it is expected that the students will choose healthier eating options and increase their physical activity in the future. Evaluation efforts will have to be repeated with students in the future, preferably in health class every year, to determine if the knowledge they gained has stayed with them and if there has been positive behavior changes.

**Title:** Health and Life Insurance Assessment

Name: Katherine Shaub

**Preceptor(s):** Direct Supervisor: Hal Smolanoff

**Agency:** Primerica, Inc.

**Purpose:** To analyze the health and life insurance needs of individuals interested in obtaining coverage by Primerica, Inc., and to evaluate which policies and annuities are appropriate for helping clients promptly process their insurance claims.

**Significance:** Life insurance policies are designed to satisfy the financial needs of an insured's dependents, and the amount of insurance purchased should depend on the standard of living the insured wishes to assure his or her dependents. The estimated unmet life insurance need in the United States of America is \$15.3 trillion. 85% of consumers agree that most people need a life insurance policy, however, only 62% of consumers have a life insurance policy. 40% of Americans with life insurance feel as though they do not have an adequate amount of coverage. As of 2010, 44% of U.S. households owned an Individual Life policy; a 50-year low. Comparatively, in 1960, 72% of Americans owned an Individual Life policy. This evidence is significant because it indicates that a consumer need exists.

Method/Approach: To conduct quantitative research for this outcomes-based project, I evaluated data through the hypothesis testing method. Individual Life Insurance is divided into two categories: 1) Term Life and 2) Whole Life. Term Life, the simplest form of life insurance, is divided into two subcategories: (a) Level Term and (b) Decreasing Term. Whole Life, or Permanent Life, is divided into four subcategories: 1) Traditional Life, 2) Universal Life (UL), 3) Variable Life, and 4) Variable Universal Life (VUL). To determine which policy matched the clientele's need and ability to pay, I analyzed eleven key factors: (a) age, (b) health history, (c) current health, (d) weight, (e) occupation, (f) smoking habits, (g) drinking habits, (h) hobbies, (i) family history, (j) gender, and (k) the policy itself. By evaluating data through the hypothesis testing method, and by implementing evidence-based interventions, I was able to satisfy consumer need.

**Outcomes/Results:** Upon completion of my project, I found that the most common Individual Life policies bought were: 1) Whole Life and 2) Term Life. 7.1 million Individual Life policies bought were Whole Life, including: (a) Traditional Life, (b) Universal Life (UL), (c) Variable Life, and (d) Variable Universal Life (VUL). 6.4 million Individual Life policies bought were Term Life, including: 1) Level Term (97%) and 2) Decreasing Term (3%).

**Evaluation/Conclusion:** Once I collected and analyzed all relevant data, I evaluated which policies and annuities were most appropriate for helping clients promptly process their insurance claims. Ongoing commitment to analyzing the health and life insurance needs of clients will be undertaken to ensure continued improvement in the future.

**Title:** Code Blue: Emergency Warming Centers

Name: Jahari Shears

**Preceptors:** Supervisor: Mr. Keith Jones, Community Organization Specialist

**Agency:** Department of Social Services, New Brunswick, New Jersey

**Purpose:** Create a plan for New Jersey municipalities to provide emergency warming shelters when temperatures fall below 20 degrees and/or a minimum of six inches of snow accumulation.

**Significance:** An average of about 1,301 people in America die from hypothermia due to inadequate shelter from freezing temperatures. (National Vital Statistics System 1999–2010). For those who survive, they suffer long term effects such as phenomena or extreme frostbite that leads to amputations. New Jersey in particular has been recorded having a temperature of -34 in the year 1904.

**Method/Approach:** Data were evaluated from past winters where New Brunswick has conducted Code Blue's Research went back six years, where Elijah's Promise Guest house has served as the main shelter and partner for Middlesex County. The 2016 season averaged 45 people/ night during each of the 18 code blue evenings in New Brunswick. Based on this information, changes were made to improve the emergency response. Next, successful methods were analyzed and identified to eliminate inefficiency. The next step was to conduct outreach to other local social/health services along with faith based communities to join Code Blue along with finding volunteers. A bill has been proposed to the State Senate which reflects New Brunswick's Code Blue plan.

**Outcomes/Results:** Code Blue receives support from FEMA and United Way. There are 3code blue sites. Their city buildings are managed by the administration. There are modes of transportation for homeless. The New Jersey Senate voted in favor for New Brunswick's proposed bill to mandate code blue. There were 20 Code Blue Nights this season of 2016-2017. There were over 200 guest served. The guest ranged from all over the state of NJ and as far as Costa Rica and Texas. There were also people who were coming to the shelters and were not homeless, but their homes did not have heat.

**Evaluation/Conclusion:** It was concluded that it would be easier to manage designated city owned buildings as opposed to depending on other organizations and faith based institutions. They are still options for the future if needed but would be limitations right now. Code blue alerts are via Nixxle, social media outlets, and institutions; i.e. Rutgers University, Hospitals, NJ Transit. Future plans are having more volunteers walking the streets to make people aware of the centers. Code blue is run solely on volunteers spending the night at the center. Through observation and critical analyzation, it was concluded that each shift should have a team leader who is familiar with the guest and personalities. This can create limitations for when leaders are not available. The code blue emergency plan runs very smoothly due to a great planning process.

Title: Increasing the Number of Community Members Trained in Mental Health First Aid in

Middlesex County

Name: Ritika Sheth

**Preceptors:** Margaret Drozd, MSN, RN, APRN-BC, Director, Community Health Services

Zachary Taylor, MEd, CHES, Coordinator, Community Health Improvement Plan

**Agency:** Community Health Services, Saint Peter's University Hospital

**Purpose:** To increase the number of individuals trained in mental health first aid, thereby creating a broader network of behavioral health resources in the community.

**Significance:** Having positive mental health contributes to a successful and happy perspective and outlook on life, and it promotes good physical health. According to the United States Department of Health and Human Services, 20% of adults experienced a mental health issue in 2014. The 2016 Community Health Needs Assessment indicates that 16.7% of the total adult population in Middlesex and Somerset Counties had four or more days of poor mental health in 30 days. In order to reduce this number, the 2016 Community Health Improvement Plan aims to increase the number of community organizations and members engaging in mental health awareness training and education. The number of people trained in mental health first aid, by 2019, will be the most direct way to measure this.

**Method/Approach:** Contacting and establishing a relationship with the Mental Health First Aid Organization was the first step in implementing this community outreach goal. Guidelines and strategic plans were drawn up through conversations and brainstorming with the contact person from the Mental Health First Aid Organization. Participants for the training were chosen from the contacts within Healthier Middlesex and the Community Health Improvement Plan steering committee. Outreach strategies included helping to identify and contact these key individuals. Working with community partners allowed for the recruitment of 15 individuals to be trained as mental health first aid instructors.

Outcomes/Results: Healthier Middlesex, a regional coalition within central New Jersey, will be sponsoring an instructor training costing \$21,000 for 15 participants. Some of the represented organizations are Saint Peter's University Hospital, Robert Wood Johnson Barnabas Health, various community based organizations, and individual professionals. By the end of the three day, eight-hour training, involving hands-on learning and an evaluation at the end, the goal is that the newly trained instructors will host their own mental health first aid trainings for their respective organizations. This increase of mental health first aid trainers will help prepare individuals to be better equipped to deal with a variety of mental health issues.

**Evaluation/Conclusion:** A pre-survey and post-survey will be sent out to recipients of the train the trainers program, along with the individuals attending the mental health first aid trainings. The survey results will indicate the number of individuals trained and the success of the program. **References:** 

https://docs.google.com/document/d/1YV2rwPkWjocRLaPrj5go9yWk tcLR5ca160S MQHxxg/edit

Title: Assessing Outreach and Health Service Needs in Middlesex County

Name: Oluwasimidele Shonibare

**Preceptors:** Direct Supervisor: Twyla Paige, Health Education Field Representative

Project Supervisor: Carrie Johnson, LINCS Coordinator

Agency: Middlesex County Office of Health Services, East Brunswick, NJ

**Purpose:** To assess which Middlesex County municipalities would benefit most from increased outreach and communication.

**Significance:** Religious community partners play a key role in public health. A religious center often provides educational opportunities to those under its care. It can also act as a primary source of information in times of both emergency and non-emergency, especially to groups that may be hard to reach. Thus, they provide a necessary bridge between the public and public health officials. Needs assessment, also, is an essential component of public health. Without understanding where outreach to community partners is lacking, the Middlesex County Office of Health would not be able to effectively tailor its programs. Furthermore, assessing the municipalities where outreach will be the most efficacious is imperative.

**Method/Approach:** A brochure was created to highlight important programs offered by the Division of Public Health Preparedness and Health Education. Concurrently, a retrospective review was performed on a 2015 database of religious centers in Middlesex County. A current database was then compiled. This was achieved by obtaining lists of religious centers from Middlesex County health officials and through internet research. A comparison study was conducted in order to measure the change in number of religious centers.

**Outcomes/Results:** The study revealed a 19% increase in religious centers between 2015 and 2017. This growth occurred primarily in five municipalities: Carteret, Dunellen, New Brunswick, Sayreville, and South Plainfield. Furthermore, of these new organizations, 42% have some sort of educational component. This includes preschool programs, nutrition education classes, and others.

**Evaluation/Conclusion:** Results of the delta analysis provide the following recommendations. It is suggested that greater outreach be conducted in the following municipalities: Carteret, Dunellen, New Brunswick, Sayreville, and South Plainfield. These communities showed significant growth in religious centers, particularly those that boast educational components. Focusing outreach efforts in these areas will increase the imprint of the Middlesex County Division of Public Health Preparedness and Health Education.

**Title:** Root Cause Analysis of Insurance Denials

Name: Ruchi Shukla

**Preceptors**: Thomas Behrendt, Education and Quality Improvement Manager, Admission Services

**Agency**: John F. Kennedy (JFK) Medical Center

**Purpose:** To organize and analyze reasons for denials at JFK Medical Center and establish standardized root causes in order to address them and decrease the amount of money lost per month to denials.

**Significance:** In 2016, JFK Medical Center lost close to \$150,000 dollars to insurance company denials. An insurance company will deny a bill for a number of reasons some of which include required authorizations being absent or out of order and/or assessing no medical necessity for the services provided. Analyzing the reasons insurance company deny a bill shows where the medical center is lacking in accurate coding and working efficiently to obtain authorizations etc. Evidence-based interventions will allow the medical center to decrease the large amount of lost revenue.

**Method/Approach:** Every month, the admitting directors, the credit department team and the clinical data management team go over the bills denied in the last month. They put a reason (3-4 sentences) to each denial. Analysis of this data included taking these reasons and cutting them down to standard primary reasons (3-4 words) such as miscommunication, authorizations issues, medical necessity discrepancies etc. The data was then converted into pivot tables in Excel which allows the data to be summarized in various, useful ways. This information was then presented to the different departments under Admission Services.

**Outcomes/Results:** The data looked at four main areas of the hospital: radiology, perinatalogy (PNT), minor outpatient procedures (MOP) and the lab. The radiology denials totaled about \$72,000. Of that 32% was due to authorization issues, 30% was due to miscommunication, 10% was due to the patient being registered incorrectly and the rest were due to miscellaneous. In the PNT data, the total amount was about \$17,000. 72% of the total was due to authorization issues, 10% was due to miscommunication and the rest were miscellaneous. From MOP denials data, the total was about \$64,000. Of that 50% came from authorization issues, 25% from miscommunication and the rest from miscellaneous problems. Lastly, the lab denials total was \$8,500 with 70% due to authorization issues, 10% to registration issues and the rest to miscellaneous.

**Evaluation/Conclusion:** Developing standardized causes for the various denials over the past year will allow future meetings to be more efficient and seeing the data in a clean format will push employees to focus on the root causes of the problem. Concluding that most of the denials arise due to authorization or communication problems allow the departments to crack down on those specific problems and ultimately lower the number of denials the hospital faces per month. The pivot tables will also be used as a dashboard that employees and managers can continually refer back to, to see updated data.

**Title:** Refugee Sexual Health Assessment

Name: Bushra Siddiqui

**Preceptors:** Grace Vinokur

**Agency:** International Rescue Committee

**Purpose:** To determine the rates of sexually transmitted infections (STIs) in the refugee population who are fifteen and above and have arrived in New Jersey within the last three fiscal years (FY 2017, FY 2016 and FY 2015).

**Significance:** The WHO estimates 340 million new cases of curable STIs worldwide annually (WHO 2007). The WHO also states that the highest number of STIs are found in sub-Saharan Africa, followed by the south and southeast Asia, then South and Central America. There about 50,00-80,00 refugees that are resettled through the U.S Refugee Resettlement Program (United States Department of Health and Human Services Office of Refugee Resettlement 2009). Refugees are more at risk to be involved with displacement, which invokes poor socioeconomic status, making it harder for access to preventative health care, as well as sexual health education.

**Method/Approach:** Using the IRC IRIS database, with the ETO software, client medical history was analyzed and categorized into excel sheets. This data was found by primarily looking at all the biodata for refugees who have arrived in the last three fiscal years that are fifteen and older. From there, if any refugees were diagnosed with an STI, further information about their conditions and treatment could be found in their overseas medical records. Rates were calculated by taking the number of identified STI cases over the total population of refugees resettled in New Jersey within these fiscal years.

**Outcomes/Results:** For the fiscal year of 2017, 85 refugees are within the age group of 15 and older have been resettled by the IRC NJ. Of the 85, there was only 1 case of an STI (Syphilis), making the percentage of refugees with a history of STIs for 2017 only 1.18%. For the fiscal year of 2016, there was a total of 2 confirmed cases of the STI Syphilis, out of 182 refugees, making the percentage of refugees with a history of STIs for 2016 1.10%. The fiscal year of 2015 comprised of 118 refugees ages 15 and up, with two cases of STIs, one of which was Syphilis and the other was HIV. The percentage of refugees that have a history of STIs for the year of 2015 was 1.70%.

**Evaluation/Conclusion:** The rates for each fiscal year show that it is not a public health concern, therefore there is no need for further intervention. Aforementioned IRC health records do indicate that the most common STI is latent Syphilis, which can be in one's body for years without signs or symptoms, making surveillance a very important part in the overseas medical examination process in order to asses and then treat people before they come into the country. If there is a failure to do so, people could go untreated for years, resulting in a risk for late complications. In addition, surveillance is an essential tool because while the most recent cohorts are not a concern, that does not mean that it holds true to every fiscal year. Therefore monitoring for a longer range of time will help identify if there were any trends.

**Title:** Oral Cancer Survivorship Program

Name: Ariana Simon

**Preceptors:** Direct Supervisor: Sara Frederick, Program Coordinator

Anna Mitarotondo, Research Teaching Specialist IV

**Agency:** Rutgers Cancer Institute of New Jersey (CINJ)

**Purpose:** To improve a pilot website, The PREP Program, to transition into the Empowered Survivor website, to help oral cancer survivors with their experience shifting into survivorship.

**Significance:** Each year around 50,000 Americans are diagnosed with oral cancer, yet about half will survive 5 years. Head and neck cancer has one of the highest mortality rates compared to all cancers, and these statistics have been stagnant over the years, showing zero improvement. There are many different risk factors for oral cancer, such as using tobacco/smoking, drinking alcohol, and having HPV. Martin-Hernan, Sánchez-Hernández, et al. (2013) found that between 40% and 80% of those with oropharyngeal cancer had a concurrent HPV diagnosis; however, between 10% and 30% of those with HPV and oropharyngeal cancer are heavy drinkers and/or smokers. This makes it difficult to find a true and specific relationship. Due to this high mortality rate, taking care of oneself is important in survivorship to increase survival rates. The Empowered Survivor program aims to help frame positive lifestyle choices that will help improve the quality of life and optimize health through survivorship.

Method: Head and neck cancer survivors from CINJ were given The PREP website, which is an online intervention, and provided feedback and ways to improve PREP. This feedback framed the content of the Empowered Survivor website, which includes five modules: Introduction, Oral Care, Swallowing and Muscle Strength, Follow-up Care and Oral Self-Exams, and Goal Tracker Module. Since January 2017, information was gathered on oral and oropharyngeal cancer in relation to HPV, alcohol, and tobacco through literature searches. Pictures of cancer lesions in different locations were collected through multiple search engines. The surveys via Qualtrics and the Empowered Survivor website were reviewed for any issues and errors. Organizations were also contacted for picture licensing. These tasks aid completion of the final product. The end goal is to market Empowered Survivor to a larger national audience of oral and oropharyngeal cancer survivors.

**Outcomes:** This project is a part of a larger long-term project that will help produce Empowered Survivor to be a fully functioning website, by providing the website with pictures, helping solve any current errors, and eventually provide it with content. This also helps oral cancer survivors be informed and proactive about survivorship through educational information, support, and symptom-management.

**Conclusion:** An evaluation will take place once the content on the website is complete. Patients will take a survey, view the Empowered Survivor website, and provide feedback on enhancements for future versions. Some limitations for this project were getting in touch with organizations when requesting to use their pictures, as well as the lack of information on the link between head and neck cancer and HPV. In the future, Empowered Survivor plans to reach a broader audience outside of CINJ.

Title: Mandated Alcohol Workshop Process Evaluation

Name: KaDreamia Sims

**Preceptors:** Project Supervisor: Tanisha Riley

**Agency:** Rutgers Health Services: Health Outreach Promotion and Education (H.O.P.E.)

**Purpose:** To determine the effectiveness of the referral process from Student Conduct to HOPE for all students that have a requirement to complete an educational sanction related to violating the university's alcohol and drug policy.

Significance: Approximately 60% of college students ages 18-22 drank alcohol the past month, and 2 out of 3 engage in binge drinking during this time frame (NIH 2015). A student caught violating the University's alcohol and drug policies are sanctioned by Student Conduct and sent to HOPE for a mandatory educational workshop, which educates students on risk reduction, informed decisions and safer behaviors. Unfortunately, many of the students that are sanctioned miss their sanction deadlines which can result in student fees for mandated programming or continued engagement in high risk behavior. [1] This project will help to show the duration of time that it takes for a student to be engaged by HOPE staff and to determine if the time allotted for attendance by Student Conduct may contribute to continued risk behavior and/or hinder student's ability to engage in prevention related services. This information will not only help HOPE to improve its' communication process with Student Conduct, but will also provide Student Conduct with information on the sanctioning system to ensure that attendance dates are equitable for all students with alcohol and drug violations.

**Method/Approach:** With Excel, data on sanctioned students were inputted into a spreadsheet. A spreadsheet, already created by HOPE, contains student's names, RUIDs, month of referral, and month of attendance. The spreadsheet for this project will extend this information further by putting in additional indicators to elaborate on the specificities of the sanction/workshop process. Student sign-in sheets were used to confirm the dates that students attended. Percentages of students that met or missed sanction due dates, various sanction deadlines (with percentages), and average number of days to complete sanctions were analyzed with the data extracted from attendance logs and records.

**Outcomes/Results:** It was found that 5% (14) of students had sanction deadlines of <14 days, 28% (74) had 15-30 days, 32% (85) had 31-45 days, 18% (46) had 46-60 days, and 16% (43) had 61 days and over. Seventy-six (29%) students missed their sanction deadlines, and one hundred eighty-six (71%) met their deadlines. The average number of allotted days to complete sanctions was 40 days. In addition, a breakdown of the ranges above show that 78% (11) of students missed the <14 day deadline, and 21% (3) met it, for 15-30 days, 41% (30) missed and 59% (44) met, for 31-45 days, 26% (22) missed and 74% (63) met, for 46-60 days, 13% (6) missed and 87% (40), and for 61 days and up, 16% (7) missed and 84% (36) met.

**Evaluation/Conclusion:** Based on the results, it was found that there is a variation and inconsistency in the number of days that students are allotted by Student Conduct staff to complete mandated programs. This information will be used to help ensure that the sanction process is equitable for students with alcohol and drug violations and ultimately to increase annual attendance in mandated programs.

Title: Leadership Seminar Internship Prospects Project

Name: Ravipal Singh

**Preceptors:** Ann Marie Hill

**Agency:** Edward J Bloustein School of Planning and Public Policy

**Purpose:** To compile and make accessible a statistical list which allows students seeking higher education to easily interpret requirements and admissions trends for the top twenty graduate schools in their fields.

**Significance:** With the ever growing health academia field, thousands of students set out to seek higher levels of education every year. Masters of public health, health administration and business administration (focused in health education), have emerged as the some of the most popular new fields of study. Many schools, included Rutgers have recently been approved for MHA programs. With new areas of study becoming popular, it is crucial that students are given all the tools and information they need to make an educated decision about their steps into higher levels of education.

**Method/Approach:** The goal was to search and find the top twenty schools in MPH, MHA and MBA. Once the lists were made, further research was necessary to show what each school demanded of each prospective student. The most important categories being competitive gpa, Gre, GMAT, recommendation letters, course requirements and amount of work experience. This list is only effective if it can show students what benchmarks they need to aim for because some schools do not even consider candidates that do not meet their requirements. In order to obtain the specific statistics for each school, key individual were contacted through email or phone with the administrative assistants. Some schools had the class profiles online.

**Outcomes/Results:** Speaking to some of the assistants led to more indepth details coming to surface. The top 8 schools for MPH had almost the same statistics. The median gpa's are around 3.5 and the median Gre's are around 159. Beyond the Top 8, the number do begin to lower. Almost every school requires 3 letters of recommendation and encourages students to have previous knowledge in courses like statistics and biology. MHA programs want to focus on mainly is the gre scores of the students. The median range of gre scores are about 153. Internships are also encouraged.

**Evaluation/Conclusion:** In conclusion, the top 20 schools in each category had similar wants from their prospective students. MPH schools focused heavily on GPA and other higher levels of education. MHA programs weigh gre's more than a student's gpa. MBA programs look mainly at a student's work experience. Having a list like this is crucial for a student's future planning. Some students that may lack gpa, now can focus on schools that weigh gre or work heavier. Students who don't necessarily perform well on standardized test can avoid the schools that main focus on gre's. This research also enables students to plan out their future if they are sure about the field they want to get into. They have benchmarks in each category they can aim for to be competitive candidates.

Title: To Analyze How Patient Experience Is Represented Through The MSK Logo

Name: Aditi Sinha

**Preceptors:** Direct Supervisor: Erin Murray, Clinical Practice Supervisor

Project Supervisor: Practice Leader: Gianna Mandarino

**Agency:** Memorial Sloan Kettering Cancer Center

**Purpose:** To analyze how daily patient interaction in Memorial Sloan Kettering Cancer Center stands up to the core and representation of what the Memorial Sloan Kettering Cancer Center logo stands for: the progressive search for a cure for cancer through patient care, research, and education.

**Significance:** Memorial Sloan Kettering Cancer Center has been ranked as one of the top two hospitals for cancer care in the country for more than 25 years. The MSK logo represents what the establishment stands for. The arrow represents the progressive search for a cure and the three lines represent patient care, research, and education. Patient care is a team effort, it requires every member to put their best foot forward and give their all. Each member of the team matters, because each member contributes to the patient experience. MSK has one of the world's most active programs of cancer research with over 120 research laboratories that are used to gain a better understanding of the disease. MSK also has 25 core facilities which provide the research community with research technology and expert services. Education is also a key component in the MSK mission. MSK has partnered with various institutions to create programs to aid employee's and people's aspirations.

**Approach:** There is constant communication between the entire team on the floor to ease a patient's visit whether it be of treatment or to see a doctor or just to get blood drawn. There are team meetings along with empathy training to make sure that employees are always reminded to do what it takes to keep the patient happy. Along with patient care, MSK conducts clinical trials to try and improve care for many types of cancer. More than 1,100 clinical research studies for pediatric and adult cancers are taking place. The third aspect of MSK that attracts so many patients is the education factor. MSK has collaborated with some of the top tier schools such as Cornell University, and the Rockefeller University to offer programs for aspiring physician-scientists.

**Best Practices:** Learning from the other session assistants and supervisors to uphold the exceptional standard of patient care that MSK helps assure the highest quality of care. It is evident how important the values of MSK are ingrained into each member of the team.

**Lessons Learned:** It is apparent that the entire team goes to far lengths to keep the patients happy. Sometimes not being able to answer certain questions has been difficult. The level of patience and respect that the session assistants uphold themselves with, along with being extremely organized, represents how MSK runs as a whole. This training assures highest levels of patient care and quality outcomes.

**Title:** Brain Balance: A Non-Medical, Drug-Free Approach to Addressing Childhood Learning

Disabilities and Developmental Delays.

Name: Alicia Sloughfy

**Preceptors:** Marilyn Rukaj, Program Director

**Agency:** Brain Balance Achievement Center of Allendale

**Purpose:** To compile a summary report of published academic research and family success stories of The Brain Balance Program in order to increase awareness of the availability and success of a drug-free approach to addressing childhood Attention Deficit Disorder.

**Significance:** Our country is currently experiencing an epidemic of learning disabilities and developmental delays, specifically with regards to ADHD. Recent statistics published by the U.S. Center for Disease control state that 1 in 9 children are diagnosed with ADHD. According to the same CDC statistics, half of children diagnosed with ADHD are treated with medication despite the "best practice guidelines" published in 2011 which states that medication should be the second-line approach for treatment of similar disorders. Brain Balance is a non-medical program designed overcome the challenges of ADHD by creating new connections in the brain through specially designed sensorimotor training, academic skill training, at-home exercises and a nutrition plan.

**Method/Approach:** Anecdotal evidence and epidemiological studies recording the effect of Brain Balance on ADHD were gathered through Brain Balance's family testimony as well as through the founder of Brain Balance, Dr. Robert Melillo's, published book titled *Disconnected Kids*. Additionally, published clinical trials and scholarly articles were retrieved. Results of the impact of Brain Balance, both anecdotal and scientific evidence, were compiled and analyzed in order to form a meta-analysis of the success of Brain Balance.

**Outcomes/Results:** Anecdotally, the results indicate significant differences between pre- and post-treatment responses by parents of the children in the treatment group. Scientifically, in the measurement of academic performance on the WIAT (an individually administered measure of oral language, reading, written language, and mathematic skill), "results indicate significant changes in all domains that required a strong attentional component" (Leisman et al 4). These results were consistent among multiple follow-up studies (Melillo).

**Evaluation/Conclusion:** Of the data retrieved, both anecdotal and scientific, there is overwhelming evidence of the success that Brain Balance has in treating ADHD. In understanding the potential impact that a non-medical, drug-free approach can have on childhood ADHD, it is essential to spread awareness to families who are struggling.

**Citations:** 

**Click Here** 

**Title:** Volunteer Services Assessment

Name: Shannon Smith

Preceptors: Direct Supervisor: Lisa Ranucci, Radiology Business Manager

Project Supervisor: Brittany Small, Manager and Volunteer Services Supervisor

**Agency:** Riverview Medical Center

**Purpose:** To analyze the daily operations, processes and benefits of the Volunteer Services Department and recommend future adjustments for further improvement and success.

**Significance:** Volunteerism is beneficial to both the organization the volunteer is working with and the volunteer. In hospitals, volunteers are cost-effective. Independent Sector determined that dollar value of volunteer time in New Jersey is \$27.46 per hour. Since volunteers are members of the community, volunteers create an opportunity for free publicity. According to a study done by the *Journal of Health and Social Behavior*, volunteering improves happiness, life satisfaction, self-esteem, sense of control over life, physical health, and depression symptoms. Student volunteers additionally benefit from volunteering by gaining experience in medicine and administration of a hospital, which become vital parts of resumes and college applications.

**Method/Approach:** The primary method of data collection was observations, communication, and obtaining documents. Observations included daily operations of the department, volunteer orientation and interviews, and various volunteers in their positions. Documents collected included the Volunteer Orientation Booklet, applications and a list of volunteer positions. Using the Volunteer Tracking Software Voltrak, quantitative data including total number of hours worked and total number of active volunteers was obtained. Research conducted to obtain information on Volunteer Management Models. For this project, the ISOTURE model was selected as a reference to assess RMC's volunteer program.

Outcomes/Results: Currently, there are 206 active volunteers at RMC. From January 1, 2012 to March 31, 2017, volunteers worked about 215,750.08 hours. This is equivalent to between 17 and 22 Full-Time Employees depending on the year. This is a cost-savings of \$5,924,497.20. A majority of Junior Volunteers volunteer to gain experience in the hospital due to a career interest in it and/or want to add community service to their resumes and college applications. Adult volunteers mainly volunteer because they have the time and want to give back to their community. In regards to the ISOTURE model, the department completes each part of the model with the exception of evaluation.

**Evaluation/Conclusion:** Riverview Medical Center runs a productive Volunteer Services Department with efficient ISOTURE model processes and a constant influx of new volunteers. To further improve the benefits of the department, implement a formal evaluation tool, continue to build new relationships with schools, and continue to create new positions to serve the needs of the hospital and utilize all volunteers to their fullest potentials.

Title: Treatment of Lower Airway Disease Among World Trade Center Responders

Name: Anchal Sood

**Preceptors:** Dr. Connie T. Chuang MD, MPA, MPH, Dr. Kathleen Black PH.D., MPH

**Agency:** Environmental and Occupational Health Sciences Institute

**Purpose:** To evaluate the control of lower airway disease with a focus on asthma and the strategies for stepping down treatment among World Trade Center responders

**Significance:** Among WTC responders lifetime prevalence of asthma increased from 3% in 2000 to 13% in 2002. In 2001, America faced the World Trade Center terrorist attack known as 9/11 and its aftermath exposed hundreds of thousands of people to debris, dust, smoke and fumes, among rescue and cleanup workers. Asthma is a chronic disease that is primarily treated with various types of inhalers. It is important to make sure that patients with different severity levels are being given the proper type, frequency and dosage of the inhaler medication. Over-prescription of medications can lead to unnecessary adverse reactions and medical care costs for patients. As part of its quality assurance efforts, the Rutgers WTC CCE would like to analyze whether or not their doctors are identifying patients that may be candidates for stepping down on inhaler treatment.

**Method/Approach:** A roster of 9/11 first responders that were taking combination inhalers in 2014 were identified. A sample of patients' charts from their first to their most recent monitoring visits were reviewed to abstract relevant data into an Excel spreadsheet. Abstracted data for each patient included the patient's family history, clinical symptoms, co-morbid diseases, lung function test values and current medication treatments, which were examined to determine if the patient was a candidate for step-down treatment. After analyzing all the charts in the sample size, patient's current treatment was examined to determine how many patients actually stepped down of those who fit the established criteria.

**Outcomes/Results:** Data were abstracted from a total of 70 charts. After analyzing the patients' charts, it was determined that out of the 70 charts, 26 were identified as candidates for stepping down on their medication treatment. Out of these 26 candidates, six patients were actually stepped down. The remainder of 20 patients experienced clinical symptoms even when they were on combination inhaler treatment and as a result, they were not stepped down on their inhaler treatment.

**Evaluation/Conclusion:** The WTC CCE clinic follows the standard guidelines used for step down treatment among asthma patients. The small number of patients stepped down on their treatment signifies that although patients' breathing test results matched the standards for step down therapy, patients' clinical and symptomatic history needs to be and were considered. The clinic effectively reviews and analyzes all patients' medical charts to ensure the best treatment for the World Trade Center responders.

Title: Kitalu Shule Project

Name: Jennifer Sosnowski

**Preceptors:** Jacqueline Wolfson

**Agency:** Shule Foundation

**Purpose:** To fund the construction of a preschool in rural Uganda.

**Significance:** Jeeja is a rural village in Uganda where around 50% of the population is living under the poverty line, as defined as being able to afford enough calories to survive. There are more than 100 different tribes in the Jeeja region with no common language spoken, the Shule Foundation's school will provide children with the early-learning experiences that they need to learn a second language and prime their brains to learn additional languages in the future, promoting cohesion within the community. The schools that exist in the region are inadequate, cost prohibitive for the majority of potential students, or both. Only about 14% of children living in Uganda attend preschool. This is detrimental because preschool-aged children are at a stage of brain development where their experiences will shape their future behavior, academic attainment and physical and mental health. Furthermore, it has been shown that a preschool education mitigates about one third of the direct effects of family wealth, education and regional location on the cognitive performance of children.

**Method/Approach:** A celebrity T-shirt campaign was planned to raise awareness of the foundation and to increase online donations. Another source of funding was a grant proposal that was written for \$50,000 (which is about half of the money needed to build the school) for Construction for Change. Research was conducted about the benefits of a preschool education, the needs of the Jeeja region, and how to best combat malnutrition in children. Through a literature review it was discovered that treating children for parasitic infections is one of the most cost-effective poverty-fighting measures that exists, and with \$120 all 200 students at the Shule Foundation's school can be treated twice a year. After reviewing the evidence, Jacqueline Wolfson decided to implement a deworming program at the Shule Foundation's preschool. Other elements required for the grant were created including an updated budget and a project timeline Gantt chart that was created from scratch using OmniPlan.

**Outcomes/Results:** The successful celebrity t-shirt campaign was launched on April 4, which caused a 5% increase in online donations. The grant proposal was submitted to Construction for Change on April 3, 2017, the Shule Foundation is awaiting a response.

**Evaluation/Conclusion:** Education is a human right and children the world over deserve to have access to the same quality of education. Funding for schools, such as the one that the Shule Foundation is building, is limited. Therefore, it is imperative for organizations create strong narratives as to why foundations and investors should invest in them.

**Citations** 

Title: Creating a Safe Environment for Physical Activity in Freehold Township

Name: John Carlos Soto

**Preceptors:** Direct Supervisor: Linda Brown, Health Educator, Mayors Wellness Campaign

Project Supervisor: Margaret Jahn, Health Officer

**Agency:** Freehold Township Health Department

**Purpose:** To assess usage of parks, as well as the way people are getting there. To create an environment that supports and encourages physical activity - both at the parks and the ability to get there.

**Significance:** Creating a safe environment for members of the community to perform physical activities is a top priority for all members of the Mayors Wellness Campaign (MWC). There are certain areas of Freehold Township that are not safe to traverse due to the fact that the biggest stretch of road also happens to be the major connecting route with which to travel from one side of Freehold Township to the other via walking. This makes it dangerous to get to local parks as well as other areas of Freehold Township and also requires a vehicle or some mode of transportation to get from one area to another safely.

Method/Approach: A 10-question survey was created by John Carlos Soto and validated by Linda Brown to assess usage and access to the Freehold Township Parks. SurveyMonkey was used to collect participant data. Participants were recruited through Freehold Township Recreations email system, newsletter, Facebook page and website, as well as the Freehold Township MWC Facebook page and website. An additional 20 surveys were collected at Opatut and Michael J. Tighe park through in person interviewing, which were inputted into the SurveyMonkey system. Analysis of data was created and reported to the Freehold Township MWC group. Using this data, the Freehold Township MWC selected Opatut Park to focus on for the first walk audit.

**Outcomes/Results:** Data for 277 members of the community were collected and of those members, 226 (81.88%) drove to the parks that they frequented, even though only 45 (16.25%) lived 3 miles or more from their home to the nearest Freehold Township park. Of the sample size (n=277), 91 (n=33.21%) of survey takers said that they went to the park at least once a week, 94 (n=34.31%) said they visited the parks 2-3 times per month and 33 (n=12.04%) said they visited the parks at least once a month. The 172 (n=62.09%) of the survey takers said that Michael J. Tighe park was closest to their homes, with Opatut park coming in second, with 49 (n=17.69%), of parks that were closest to the survey takers homes.

**Evaluation/Conclusion:** More than 30% (n=104, 37.82%) of survey takers said they did not feel safe walking to the closest park near their home. Walk audits and follow ups will serve as effective strategies to (a) locate unsafe streets, sidewalks and areas, (b) make the necessary changes that need to be made as well as (c) follow up to make sure that these changes were implemented and continue to be reviewed for future changes.

Title: Gotham Shield, Radiation Preparedness Exercise

Name: Jocelyne Spezio

Preceptors: Rich Kozub, Management Specialist, Special Operations Unit

**Agency:** Middlesex County Department of Public Safety & Health

**Purpose:** To establish a foundation for Just-In-Time-Training for the setup of a Radiological Community Reception Center.

**Significance:** According to the United States Environmental Protection Agency, if an individual is exposed to significant amounts of ionizing radiation, they can suffer from chemical changes in their cells, and cause temporary or permanent damage. Depending on the amount of radiation received, cancer can result. The EPA also states that an acute exposure can cause death or extreme sickness if not addressed within a few hours or days of exposure; therefore, every second counts in a crisis situation. By creating a standardized process and providing clear and informative tools for Just-In-Time-Training, an organization's ability to respond faster increases significantly.

**Method/Approach:** The methodology portion of this project is broken down into four different steps: identify, categorize, implement and measure. The first steps taken were to identify and photograph the tools and equipment needed for each station in the CRC. Next, stations were identified and created based on reception center and operations team needs. After the identification stage was completed, the categorization began. This included sorting tools and equipment to be used at each station during the exercise. Identification numbers were then assigned to all Middlesex County owned equipment and materials. All stations were packaged in Warehouse 216 at the Middlesex County College. The measurement process was completed by calculating the visual aid completion rate to identify how many items were photographed for the catalog. Finally, a focus group survey was administered to the operations team to measure the effectiveness of the visual aids.

**Outcomes/Results:** Of the sample size (n=434), 427 (97.5%) items were cataloged, and 11 (2.5%) were not able to be cataloged. Of the items not cataloged in the inventory, 2% of the missing items were different participant registration forms that were not yet produced at the time the catalog was created. 101 (23.3%) of the total 434 items were of common knowledge, including items such as water bottles or clipboards. Upon completion of the Gotham Shield briefing, a focus group survey unanimously identified that the inventory logs adequately identified the necessary materials to be collected and utilized at each station.

**Evaluation/Conclusion:** The administered participant surveys showed that the visual inventory catalog was unanimously beneficial and would be of use in the time of a radiological emergency.

**Sources:** https://www.epa.gov/radiation/radiation-health-effects

Title: Diabetes Prescription Foods Program Project Coordination and Management

Name: Elizabeth Stanley

**Preceptors:** Julienne Cherry, Director of Agency Relations

**Agency:** The Community Food Bank of New Jersey

**Purpose:** To devise a SMART action plan and logic model in order to develop program logistics and obtain grant funding by July, 2017.

**Significance:** It is understood that social determinants such as income, education, housing and access have a significant bearing on type 2 diabetes. A 2014 study published by *HungerNet*, shows that households served by The Community Food Bank of New Jersey and its member agencies have at least one diabetic person. In New Jersey, those with incomes of less than \$15,000, have twice the rate of diabetes. These people have significantly less access to not only nutritiously adequate foods, but also primary medical care. Many food bank clients make the choice between food and other living expenses as well as food and medicine. The risk of developing diabetes is very high for food-insecure people and once diagnosed, many are incapable of self-management with the proper lifestyle changes. The "Diabetes Initiative" is a collaboration between The Community Food Bank of New Jersey and a partnering medical entity focused on helping food bank clients living with uncontrollable diabetes gain access to the proper resources such as diabetic-friendly food, medical referrals and diabetes education in order to manage their conditions.

**Method/Approach:** The "Diabetes Initiative" is a pilot study modeled after three previous pilots through Feeding America in California, Ohio and Texas. Data on logistics and outcomes were used to form an Action plan that was broken down by month along objectives. The top priority was confirming agreement from the nine solicited agencies. The first grant proposal went out in January and feedback was used to revise the program's projected outcomes. February to March focused on building the "food box menu" and the operations model. March to April focused on agency visits and surveys as well as solidifying the budget. April into May focuses on created the educational model including obtaining partnerships with practicing educators in the local communities. Final grant proposals and applications will be sent out in early May for June approval and a program start time of July, 2017.

**Outcomes/Results:** Overall, the devised action plan and logic model proved to be successful. Through efficient program coordination, development remained on track. Denial of the first grant application caused re-evaluation of the projected study outcomes. The education element proves to be the most challenging part of the program to create due to the many resources involved. The final grant proposals and applications will be sent in early May for June approvals.

**Evaluation/Conclusion:** The conclusion of this planning stage will be grant approval and solidified funding for the "Diabetes Initiative".

Title: Social Determinants of Health Impact on Delivery of Health Services

Name: Medin Tafa

**Preceptors:** Dr. Michael Steinberg, M.D., MPH, Professor and Chief

Agency: Rutgers Robert Wood Johnson Medical School- Division of General Internal Medicine

**Purpose:** To implement concepts related to social determinants of health in order to enhance practice management and health care delivery in a Primary Care Practice.

**Significance:** Social determinants of health are environmental and social structures contributing to an extensive array of health outcomes. These conditions, including education, employment, access to healthcare, and socioeconomic status, substantially influence health globally. Integrating social supports and services into healthcare provision is essential to address the broad range of social determinants serving an important role in health and well-being (Bernazzani 2016). Initiatives are emerging to recognize these determinants of health and develop integrated solutions within the healthcare system.

**Method/Approach:** A comprehensive resource list of local health/social services from Central New Jersey was compiled in order to implement social determinants of health into the Division of General Internal Medicine. A 25-item survey instrument was administered to nurses and physicians (n=11) through interviews and electronic delivery. The survey aimed to obtain an accurate understanding of current practice efficiency and how social determinants impact the delivery of healthcare. The survey incorporated 11 questions using a 10-point likert scale, 5 multiple-choice questions, and 9 open-ended questions. Statistical analyses included frequencies, means, and standard deviations.

Outcomes/Results: When asked questions concerning social determinants of health, 91% of subjects were 'somewhat knowledgeable' on concepts related to social determinants of health. 63% believed it was 'extremely important' to collect information on patients income, education and employment. 64% and 36% of health professionals felt that having a comprehensive list of local social/health services could prove to be 'extremely useful' and 'somewhat useful' respectively when treating patients. In regards to practice efficiency questions, 90% of subjects believed the newly implemented scheduling system (Mckesson) is worse than the previous system (UBHC). 44% felt that No-Shows have become a bigger problem in the past 3 months, although 55% were 'not supportive at all' in regards to double booking during the first and last weeks of the month.

**Conclusion:** Adjustments need to be implemented to substantially improve scheduling satisfaction within the practice. Future additions of social determinants (education, employment, etc.) to the EMR could be used to gain a greater understanding of a patient's health profile. Physicians within the Division of General Internal Medicine now have the opportunity to use resources from the constructed resource list to improve the health of their patients with applied methods outside the realm of medicine.

Citations: http://bit.ly/2oyWM7J

**Title:** Evaluating the efficacy of different viscosupplementation injections for knee

osteoarthritis

Name: Kyle Tomsky

**Preceptors:** Direct Supervisor: Lambros Lambrou,

Project Supervisor: Sandy Foukarakis

**Agency:** NorthEast Spine and Sports Medicine

**Purpose:** To conduct a literature review on different Vsn injections to identify ones with the greatest patient improvement scores in order to make recommendations to the physician.

**Significance:** The most common form of arthritis is osteoarthritis (OA) and affects more than 30 million adults in the United States and is sometimes referred to as degenerative joint disease. One form of treatment for OA is viscosupplementation (Vsn). Vsn is performed by injecting hyaluronic acid into the joint capsule of patients with OA. Some of the Vsn injections used currently are Hyalgan, Supartz, Orthovisc, and Synvisc. While they are all used to provide relief to patients with OA, they do have slight differences. The goal of this literature review is to provide insight into which Vsn injections have the best chances of improving the quality of life among patients at NorthEast Spine and Sports Medicine.

**Method/Approach:** Searches were conducted using PubMed, MedLine, and the Cochrane Library to identify articles after 2007. Articles were then further analyzed to confirm that they met the criteria and then imported into EndNote X8. Articles were organized into a table by year and displayed information about treatment, outcomes, and the conclusion of the study. The information acquired in the literature review was used to make recommendations for which Vsn injection should be used to treat patients.

**Outcomes/Results:** Three hundred and seventy-nine articles were originally identified through multiple different searches. Upon review of the abstracts, 18 of the articles were selected to be analyzed in-depth to ascertain that they met the inclusion criteria. Of the 18 articles, 4 were discarded as they did not meet the inclusion criteria. Of the 14 articles reviewed, one brand of Vsn could not be determined to be significantly better than another. Of the Vsn injections reviewed, Synvisc was determined to be the most effective in providing patient relief, followed by Orthovisc, then Hyalgan, and lastly, Supartz.

**Evaluation/Conclusion:** The information analyzed in this study will be used to inform the practices of NorthEast Sports and Spine Medicine. The major findings in this study have suggested that Synvisc is the most effective at reducing patients pain. While there were differences to be found between patient relief and different Vsn injections, the difference was not found to be significant. Further clinical research comparing the efficacy of different viscosupplementation injections in one study would further contribute to identifying the most effective Vsn for patients experiencing knee osteoarthritis.

**Title:** Cardiovascular Disease prevention and awareness for women veterans

Name: Monica Torres

**Preceptors:** Direct Supervisor: Dr. Pearl Korenblit

Project Supervisor: Joan Vetter, RN, MSN, Health Behavior Coordinator

**Agency:** VA New Jersey Health Care System, East Orange, New Jersey

**Purpose:** To increase awareness of cardiovascular disease (CVD) risk factors among women veterans through educational offerings and screenings.

**Significance:** An assessment of a recent study published in the American Heart Association journal was performed by the VA health promotion staff which indicated that the number of women veterans seeking care at the VA has doubled in the past decade. The data revealed that women veterans seeking medical care for chest pain were younger, tend to have higher rates of post-traumatic stress disorder (PTSD) and were more likely to suffer from obesity than male veterans. The study found a possible correlation between mental health and heart disease, noting that the rate of depression was significantly higher at 53% among women than men at 31.4% and PTSD at 20% among women while only 16% among male veterans. Furthermore, a study published in the Journal of General Internal Medicine performed by Vimalananda, et al. (2013) found that newer cohorts of women veterans had an earlier emergence of cardiovascular disease risk factors than older cohorts did and proposed the need for Veteran's Affairs to consider gender-specific interventions targeting CVD prevention.

**Method/Approach:** The VA supports the American Heart Association's (AHA) Go Red for Women to raise awareness among women veterans of the risks of CVD. In collaboration with the Go Red for Women program, the VA launched the 2017 VA Goes Red Challenge to educate women veterans on risk factors for CVD, setting heart healthy goals, and lifestyle modifications through bi-monthly events held at the women's health clinic. The initial event took place in February 2017 in the women's health clinic in East Orange where VA and AHA approved materials on risk factor modifications were distributed to women veterans in addition to verbal presentations, taking into account literacy limitations. The event also included healthy cooking demonstrations, giving consideration to income levels. At the completion of the event a grant proposal was submitted requesting funding for continued educational events.

**Outcomes/Results:** During the event, a survey developed by the health promotion staff was distributed to determine the effectiveness and the level of cardiovascular disease risk factor awareness. Of the women veterans that attended the event, 11 agreed to complete the survey and all responded that the event was useful and that they were now more aware of the risks. Furthermore, 9 out of 11 participants stated that they wanted to attempt lifestyle modifications to reduce their risks. The VA New Jersey Health Care System in East Orange, New Jersey was notified on April 14, 2017 that they were awarded \$1,000 as one of two winners that submitted grant proposals nationally.

**Evaluation/Conclusion:** Studies show the need for increasing awareness among the expanding female veteran population. The success of future events will be facilitated with the grant funds with the goal of adding these events to current VA programs that focus on individual counseling and risk factor modification to encourage healthy lifestyles.

Title: Boosting Patient Reassurance In Provider Selection by Establishing A Strong

Online Reputation

Name: Albruce Touaev

**Preceptors:** Jon Cuviello (Director of Operations)

Carole Koteles (Business Operations Specialist)

**Agency:** Shore Physicians Group

**Purpose:** To encourage patients to review their primary care physicians online in order to establish a stronger and more reputable online presence that will capitalize on expanding market share.

**Significance:** If provider directories online are listed incorrectly, market share will greatly diminish and in consequence hurt a health organization in conducting medical practice to full potential. According to PatientPoint, 80% of Internet users or about 93 million Americans have searched for a health related topic online. This is a statistic that greatly influences the decisions Shore Physicians Group (SPG) as an organization should take into consideration when promoting physician referrals and aiming to retain and/or grow market share. Overall, patients research and trust online reviews when making critical decisions that affect their health outcomes.

**Method/Approach:** To complete a physician review correctly, directories online must first be reviewed for any form of error. With a solidified directory presence, patients can gain accurate access to researching and reviewing SPG's health provider services. To further assist patients, physician review cards that provide instructions to complete reviews through web applications like *Yelp*, *HealthGrades*, and *Google* will be distributed to each patient upon departure from their appointment. The next step will involve engaging with patients online by responding to both positive and negative reviews. A response template will be utilized to match each review with a specific response.

**Outcomes/Results:** Established was an accurate online directory that displays correct contact information. Out of the 9 outpatient practices, there were a total of 8 corrections to be made in both hours of operation and phone numbers displayed on *Google*, as well as 2 practices lacking an online presence that were eventually created. All 9 practices were finalized in being listed on *Yelp* which included a photo of the practice, the providers that work in each with specialties listed, their contact information and hours of operation. A *HealthGrades* admin account was also established that lists all of SPG's providers for patients to research and submit reviews towards. There were 44 providers in total where 54 physician review cards for each provider were created and issued to all 9 outpatient practices.

**Evaluation/Conclusion:** The increase in patient reviews will set the tone towards the quality in which SPG offers its services. With positive feedback, SPG will be able to promote its health services with confidence that aims to expand market share. As for negative reviews, SPG will be able to better understand its health services worth addressing improvement. Regardless of both positive and negative reviews, a response template has been created to demonstrate to both current and potential patients, Shore Physicians Group is actively involved in taking reviews submitted from loyal patients into great consideration.

Title: Student's Perception of New Brunswick's Health and Wellness Programs & Events

Name: Chiamaka Udoye

**Preceptors:** Direct Supervisor: Manuel Castaneda, Director of Community Health

Project Supervisor: Abigail Thompson, Live Well-Vivir Bien Campaign Coordinator

**Agency:** New Brunswick Tomorrow

**Purpose:** Collect and analyze data from the Rutgers student body to ascertain the underlying cause for low attendance at health and wellness programs and events provided in New Brunswick.

**Significance:** The non-profit organization, New Brunswick Tomorrow, observed low attendance from college students attending health and wellness programs and events. Subsequently, Keating, Guan, Pinero & Bridges (2005) found that 40% to 50% of college students are physically inactive. The evidence implies underlying factors that may limit the opportunity for college students to participate in health and wellness programs to increase physical activity. A community needs based assessment can help pinpoint the factors to determine the underlying causes of college students' absence in health and wellness programs and events.

**Method/Approach:** A convenience survey was developed to determine the perception of college students in relation to health and wellness programs and events outside of Rutgers parameter but within New Brunswick city limits. Additionally, to determine the barriers, if any, to attending health and wellness programs and events. The survey pool was limited to on/off campus residents residing in New Brunswick residential area, i.e., Douglass/Cook & College Ave campus and administered at the College Hall, Plaza Stop & Liberty St. bus stops. Data for the college students were exported into a spreadsheet and tabulated to determine the barriers to attending health and wellness programs and events.

**Outcomes/Results:** Of the sample size (n=100), (2%) deemed health and wellness programs and events as "not important," (28%) 'extremely important,' (47%) 'very important,' (23%) 'somewhat important.' Of the same sample size (n=100), (34%) claimed that the barrier to participating in health and wellness programs were due to time, (34%) awareness, (26%) transportation and (5%) safety concerns.

**Evaluation/Conclusion:** The sample size is an insignificant statistical representation of college students' perception and barrier to health and wellness programs and events. The end results, based on preliminary finding, indicates that time restraints and awareness limit the opportunity for college students to attend health and wellness programs and events. To rectify this issue, my proposal is to create an outreach program focused on amplifying the awareness of the Live Well-Vivir Bien New Brunswick campaign within the Rutgers student body to increase attendance of Rutgers students.

Title: Decreasing Lead Exposure in Newark, NJ

Name: Gloria Ugwu

Preceptors: Dr. Robert Laumbach, MD, MPH, CIH

**Agency:** Environmental and Health Sciences Institute

**Purpose:** To review and evaluate low-cost interventions that may decrease lead exposure among children in Newark, NJ

**Significance:** Although the United States banned lead-based paint in 1978, significant amounts of lead still linger in the environment. When absorbed, lead has detrimental effects on the brain, nervous system, and blood cells. These effects include learning disabilities, decreased hearing, mental retardation and possible death. Exposure to lead is particularly hazardous for young children because their brains are still developing. Those who have suffered the adverse effects of lead need special health and educational services. According to 2015 surveillance data, Essex County had the highest number of children tested for lead levels 5-9 ug/dL and the highest number of households with confirmed elevated blood lead levels. Newark has the largest burden of lead poisoning among children compared to any other local board in New Jersey.

**Method/Approach:** A review of thirteen randomized control trials was conducted to identify and compare low cost interventions. Additional literature reviews were conducted on the significance of randomized control trials (RCTs) in experimental research while identifying limitations. RCTs are considered the highest form of evidence based medicine. However, they require a controlled environment which may limit external validity and compromise utility when applying any conclusions to public health practice. Our interest was in assessing the effectiveness of a low cost intervention and not the efficacy of any particular research study. Of the 13 RCTs, we chose a 1999 study conducted by Dr. George Rhoads in Jersey City, NJ. Rhoads and his colleagues randomized 113 6-36 month old urban children. While the intervention group received biweekly assistance with household cleaning along with educational sessions for mothers, the control group were given household safety items with no assistance or special education.

**Outcomes/Results:** The cochrane review concluded that when reducing blood lead levels, household educational interventions are ineffective, dust control interventions may lead to little or no difference, and there is insufficient evidence to draw conclusions about soil abatement. Rhoads' study concluded regular home cleaning, with maternal education, is a safe and partially effective intervention. Blood lead levels fell 17% [-0.52, 95% CI] in the intervention group and did not change among the controls. An average of 34% drop in blood lead level occurred in children whose homes were clean 20 or more times.

**Evaluation/Conclusion:** After presenting these conclusions to the Newark Healthy Homes Program (HHP) committee, focus was shifted to increase awareness in the target Newark communities.

Title: Engaging Youth in Creating Healthy Lifestyle Choices Through Health Education

Name: Amanda Velazquez

**Preceptors:** Yesenia Medina-Hernandez, Program Coordinator

**Agency:** Robert Wood Johnson University Hospital Community Health Promotions Program

**Purpose:** To analyze the effectiveness of nutritional and healthy lifestyles education program for of? students ages 10 to 14 years old.

**Significance:** According to American Diabetes Association, about 208,000 Americans under the age of 20 years old suffer from Diabetes. Project Inspire is a week-long interactive health education program for students ages 10-14 years old to adopt healthy behaviors to prevent the onset of disease. Project Inspire targets New Brunswick youth as main participants in the program. It is important to note that about 55.8% residents New Brunswick are from Latino/Hispanic backgrounds(Census Bureau). From a recent study conducted from Diabetes Care, they found that the prevalence of diabetes among Latino/Hispanic groups was 16.9% compared to non-Hispanic Whites at 10.2%.(American Diabetes Association). The educational growth students had during Project Inspire is significant in their ability to make healthy choices.

**Method/Approach:** First, a survey was conducted to assess students' perspective on personal health. The survey asked the students' perspective on their (1) eating habits, (2) amount of physical exercise per week, and (3) overall health. Secondly, a pre and post test was conducted to assess students' educational growth in the program. Both test consisted of the same 10 questions to evaluate the student's' comprehension in healthy eating habits and exercise. The pre-test was administered on the first day of the program. The post-test was administered on the last day of the program after the health education was completed.

Outcomes/Results: From the survey, students answering to the first question said that 60% of them ranked their overall health as goo . While 40% of students ranked their overall health as neutral. For the second question, students answered that 20% of them exercise for 7 hours or more a week, 40% exercise about 5 hours or more, 20% exercise about 3 hours, and lastly another 20% exercise 1 hour or less a week. Thirdly, 60% of students said that they would rank their healthy eating habits as neutral. While, 40% of students rank their eating habits as good. Lastly, the average score from the pre-test was 75% (7.5 questions right out of 10). The average score for the post-test was 87% (8.7 questions right out of 10).

**Evaluation/Conclusion:** From the perspective of health survey, the data showed how students perceived their own health. The overwhelming 60% of students who ranked their eating habits as just neutral displays a need for students to learn about nutrition. The health status survey can be used as a tool in discovering the student's perspective on health to better understand their educational needs. The results from the pre and post test displayed how effective students were in retaining the educational information the program addressed.

**Title:** Providing the Best Patient Quality Experience at Memorial Sloan

**Kettering Cancer Center** 

Name: Carmen Velez

**Preceptors:** Clinical Practice Supervisor: LaToya Ford

Practice Leader: Aneta Bose

**Agency:** Memorial Sloan Kettering Cancer Center

**Purpose:** By applying the values and goals outlined by MSKCC, including being relentless, united and caring, session assistants can provide effective patient flow and quality experiences.

**Significance:** Memorial Sloan Kettering is one of the oldest and largest private cancer centers and is well regarded for its focus on patient-centered care. In 2016 alone, 1.6 million people in the United States were diagnosed with cancer. MSKCC is a leading research hospital and continues to innovate and implement new technologies that will provide new ways to treat cancer. To achieve the best outcomes for patients, it is best to provide them with the understanding that they are cared for and that they are not alone as they transition into life-altering events. Effective communication between session assistants, physicians, and patients helps provide their visits with a quality experience that will make them feel comfortable and supported.

**Approach:** As a Session Assistant who works effectively as a team with the clinical team in the colorectal, hepatopancreatobiliary, and gastrointestinal suites, interacting with patients at the front desk helps to effectively resolve their questions or concerns during their visits. Patients who need guidance can find assistance within reach whether this means finding interpreters, directing them to the Patient Financial Service office, or simply assisting them with new visit health forms. To give patients the best quality experience communication is the best form of approach to assist with their needs.

**Best Practices:** The success of healthcare settings is best practiced when all team members of the Session Assistant positions can work in an organized manner to provide the patient the best experience during their visit. Using the communication tools such as the Communicator instant messenger to reach the Session Assistants in the clinical area helps to get a quick reply when the floor is most busiest. Effective communication through email also makes it easier to relay messages to the entire floor or to another person within the building.

**Lessons Learned:** There is still room for improvement to get patients to their appointments on time but preparing for delays and telling the patient beforehand helps them understand better when they will be seen. It can be frustrating for patients when they have a long day of appointments. The best way to accommodate them is to have them reach their next appointment location and let them know that they should expect a delay for their appointment.

Title: Cultural Competence and Asian American Mental Health

Name: Alaisha Verdeflor

**Preceptors:** Mark Cruz, Health Education Specialist

**Agency:** Rutgers Health Services: Health Outreach Promotion and Education (H.O.P.E.)

**Purpose:** To improve community engagement through a pilot training program that will boost the peer educator's cross-cultural efficacy.

**Significance:** According to a study published in the American Journal of Public Health (2007), only 8.6% of all Asian-Americans will utilize mental health services. While the percentage is low, Asian-Americans between 18-24 years old are more likely to have suicidal thoughts and attempts than their white counterparts, and suicide remains the second leading cause of death for this age group (American Psychological Association, 2012). Since Asian identified students are 26% of the Rutgers student population, this project seeks to bridge the disparities in treatment by offering HOPE's peer educators with the resources to effectively communicate to this demographic.

**Method/Approach:** A training program that addressed cultural competence and mental health stigmas in the Asian community was developed for HOPE's current peer educators. The steps involved in the program development included researching Asian American mental health disparities, developing a program outline, creating and administering pre and post tests, finding germane resources to give to peer educators, and creating a promotional flyer. Additional steps included meeting with the supervisor every week for feedback.

**Outcomes/Results:** 70% of participants (n=10) showed an increase in knowledge of specific counseling and psychiatric services on campus available to Asian-identified students, other communities of color, and the LGBT+ community; 70% showed an increase in knowledge about Asian mental health stigmas; and 80% felt more confident in relaying health information to Asian identified students. By the end of the program, 90% of the participants were able to define cultural competence.

**Evaluation/Conclusion:** Knowledge of other cultures is needed among health educators to effectively communicate to diverse groups. An hour long program was not long enough to fully address both cultural competence and mental health stigmas specific to the Asian community. Future suggestions include conducting a separate training workshop on cultural competence, as well as conducting workshops specific to addressing mental health in other cultures.

https://goo.gl/Pvdfl7

**Title:** Addressing the gender gap in primary care use at Rutgers University

Name: Kshitij Verma

**Preceptors:** Mark Cruz, Health Education Specialist

**Agency:** Rutgers Health Services: Health Outreach Promotion and Education (H.O.P.E.)

**Purpose:** To develop a workshop for Rutgers H.O.P.E. peer educators to explore and find solutions to the gap in primary care utilization by male Rutgers college students.

**Significance:** On average, college-aged men seek out primary health care services about half as frequently as college-aged females. This is despite the fact that college men are far more likely to take part in 20 out of 26 identified high-risk behaviors such as speeding, driving under the influence, and unsafe sexual practices (Courtenay 2000). Research has shown that college men are aware of their health needs and problems, but took little to no action to address them. The greatest barrier to seeking medical help were college men's socialization to be independent and conceal vulnerability (Davies et al., 2010). Socialization of gender roles and stereotypes continues to be a major hurdle for college men seeking help and it must be addressed before the primary care utilization gap between the genders can be bridged.

**Method/Approach:** A workshop was proposed that would explain the role that identified gender and its associated stereotypes played in help-seeking behavior. The workshop was open to all peer educators at H.O.P.E. who wanted to attend. The workshop consisted of a PowerPoint presentation and two activities. The first activity compared the health behaviors of college men and women. Participants would then identify the differences and how they were tied back to gender socialization. The second activity was a brainstorming session where participants identified ways in which college men could be encouraged to seek help early and how to promote healthy behaviors in college men. A satisfaction survey was administered at the end of the workshop to gauge the participant's interest in the information received and their interest in future workshops.

**Outcomes/Results:** A Knowledge, Attitudes, and Beliefs (KAB) pretest and posttest was administered along with a workshop satisfaction survey. There were a total of 7 participants (n=7) and all were female. Five participants felt there were no health initiatives or activities 'specific to their gender identity while 6 participants indicated that they would like to see more 'gender specific health programs'. Six participants reported a rise in confidence when discussing gender issues and health.

**Evaluation/Conclusion:** According to the satisfaction survey, participants were mostly satisfied with the workshop, indicating that information they received was helpful and that they would recommend the workshop to other peer educators. A severe limitation of the study was a noted lack of college aged men who attended the workshop. This is indicative of the need for further outreach to encourage college aged men to become more engaged in their own health issues and improve help-seeking behavior.

**Title:** Identification of Delay Causes in First Case Time Starts in the Operating Room

Name: Kanak Vyas

**Preceptors:** Patricia McNamee MS RN /AVP Perioperative Services

**Agency:** Monmouth Medical Center

**Purpose:** To observe, document and analyze First Case Time Starts in the Operating Room to identify the factors which cause the most delays.

**Significance:** Time is of great importance in the Operating Room (OR) as everything is run on a schedule. In order for the OR schedule to remain on track, it is imperative that the first case of the day starts on time and Turnover Time is minimal. If the first case does not start on time, all following cases in the OR will also be delayed. Delays result in both patient and surgeon dissatisfaction. The hospital is making efforts to increase efficiency, and patient and staff satisfaction. The first step to this is to identify the issues so that they may be addressed. The identification of the factors that cause delays in First Case Time Starts would allow administration and staff to address these factors and increase the amount of first cases that start on time.

**Method/Approach:** First Case Time Starts and Turnover time in the OR was observed and documented during the month of February. First Case Time Starts are recorded for the first case of the day in each operating room. Turnover time is recorded when the time between one case ending and the subsequent case beginning is less than 60 minutes. Data was collected by myself, nurses, housekeeping, and other healthcare professionals. The data for First Case Time Starts were then compiled into a spreadsheet by Dely Ferrer. This spreadsheet was then analyzed in order to identify the most common causes of delays in First Case Time Starts.

**Outcomes/Results:** In the month of February, 41.2% of first cases were delayed. Some cases have more than one cause for delay. Out of the delayed cases, 35.36% were delayed due to late surgeon arrival time. The was the largest contributor to delayed First Time Case Starts. The second largest contributor to delays was case re-labeling which can account for 15.85% of delayed cases. 14.63% of delayed first cases were a result of the previous case running late. The remaining 34.16% of delayed cases were due to a variety of causes, each of which resulting in less than 10% of delayed cases.

**Evaluation/Conclusion:** In 2015, 49% of first cases started on time. In 2016, 50% of cases started on time. The efforts to identify causes of First Case Time Start delays are made in order to address these delays and increase the amount of first cases started on time. Through First Case Time Start data collection and analysis, it has been identified that surgeon arrival time is the most common cause of delay. Unrelated to this study, First Case Time Starts in March were pushed back by 15 minutes, resulting in over 81% of First Cases starting on time. Further data collection and analysis may be able to identify other delays in First Case Time Starts, as this study only consisted of data from one month.

Title: Hand Hygiene Project

Name: Harleen Walia

**Preceptors:** Direct/Project Supervisor: Patricia Lafaro, BSN, Director of Infectious Disease

**Agency:** Robert Wood Johnson University Hospital, New Brunswick

**Purpose:** Analyze how proper hand hygiene can reduce the risk of patients acquiring infectious diseases in a healthcare setting.

**Significance:** 1 in 25 patients have a hospital acquired infection during their stay (CDC 2016). In the New Jersey, the number of hospital acquired diseases is very high. More than 75% of health care workers do not use proper hand hygiene, and 88% do not use proper protective gear (gowns, gloves, masks). Since implementing the Hand Hygiene Model at RWJ, there has been a significant reduction in hospital acquired diseases, which is important for patient safety

**Method/Approach:** Implementing the hand hygiene model allowed the hospital to better understand the correlation between hand hygiene and hospital acquired infections. Surveillance, is conducted through 'secret shoppers' that are able to gather uncontrolled data of health care providers entering and exiting the patient rooms. On the observation sheet there are various sections that allow the observations to stay organized, section one labels the type of health care provider (nurse, Dr., CCT, etc) being observed, section two documents entering or exiting the patient room, and the third section documents if the patient is in isolation or not. Observations are inputted into a server called 'iscrub', which is accessed by the Infectious Disease team at RWJ to monitor the rates of Hand Hygiene compliance at RWJ.

**Outcomes/Results:** Out of the 265 observations conducted in the month of February (2017), 206 (78%) were non-compliant. 88 (42%) out of 206 non complaint did not use proper protective gear or hand hygiene while providing care in an isolation room. During the month of March more educational classes were added to teach more of the hospital's population about proper hand hygiene. In the month of March (2017) 298 observation were collected, 204 (68%) were non compliant, 75 (36%) out of 204 did not wear the proper protective Gear. After increasing the number of health care providers educated, there is a reduction in non complaint rates.

#### **Evaluation/Conclusion:**

The hospital administration, and infectious control, made it a goal to educate and help the health care providers understand the benefits of proper hand hygiene. After a month of education to all health care providers, the number of non compliant hand hygiene dropped and the number of non compliant proper protective gear has also dropped from February 2017 to March 2017. It was evident that educating the health care providers allowed them to understand the risk they were putting their patients safety and their safety in. Continuing to educate will help reduce the risk of hospital acquired diseases at RWJ.

Title: Alliance For A Healthier New Brunswick: The New Park System of New Brunswick, NJ

Name: Bryonette D. Walls

**Preceptors:** Maria Pellerano, Site Preceptor, Facilitator

**Agency:** Robert Wood Johnson Medical School

**Purpose:** To increase use of parks in New Brunswick, New Jersey, and make recommendations for park usage.

**Significance:** The New Brunswick park system has many parks located in various parts of the city. Research will provide a more in-depth analysis of recreational activities offered in the parks and what types of improvements can be made in order to increase park usage. Evidence collected will include; observation of daytime usage, voluntary interviews of community stakeholders, and literature reviews. Findings from interviews and observation indicate that safety and security, types of activities and events, and quality of facilities and amenities affect usage.

**Method/Approach:** A series of literature reviews were conducted on various parks in the United States which serve vulnerable communities. Research shows that parks provide measurable health benefits, from providing direct contact with nature and a cleaner environment, to opportunity for physical activity and social interaction. Will meet with individual stakeholders to ask questions about how the parks are being used in the community in order to discuss possible concerns and barriers. Determine what improvements are needed in the parks and how to address these needs to increase park usage. Student will be responsible for conducting group observation in various parks in New Brunswick, New Jersey to evaluate the volume and and types of recreation that is offered in the parks.

Outcomes / Results: Literature reviews show that being exposed to parks can contribute to overall good health. Harvard University professor, Edward O. Wilson, Ph.D., argues that human beings have a genetic urge to seek connection with other living things. In The Diversity of Life, he observes that the "favored living place of most individuals is a prominence near water from which parkland can be viewed,' and that in 'the United States and Canada, more individuals visit zoos and aquariums than attend all professional athlete events combined. Health studies shows that contact with nature - with plants, with animals, with beautiful landscapes, and with wilderness - offers a wide range of medical benefits. These include lower blood pressure and cholesterol levels, enhanced survival after heart attack, more rapid recovery from surviving fewer minor medical complaints, and lower level of self- reported stress. In children with attention disorders and teens with behavioral disorders, contact with nature has resulted in significant and improvements (Frumkin, 2001). Interviews with community stakeholders and observations indicate that many factors influence park usage. Factors such as location; safety and security; facilities and amenities; programming and events; and community involvement all influence park usage.

**Evaluation/Conclusion:** Literature reviews on various park systems in the United States, all conclude that park use is beneficial in health and well-being. In many cases, observations confirmed community stakeholders perceptions of the parks. In some cases, observations provided a more nuanced understanding of how parks are used. For example, interviews indicated that increased police, less graffiti, and better maintained facilities would make the parks more appealing. In some parks, events and park locations were more important.

**Title:** Zika Awareness for College Students on Spring Break

Name: Angel Weng

**Preceptors:** Krista Reale, MA, CHES

**Agency:** NJ Department of Health, Communicable Disease Services

**Purpose:** To develop a Zika virus outreach campaign targeted toward college students traveling to areas with active Zika transmission on spring break, including administering a pre- and post-survey and creating Zika education and outreach materials targeted toward college students.

**Significance:** The World Health Organization (WHO) declared Zika a public health emergency of international concern on February 1, 2016, and ended the emergency in November of 2016. The virus is primarily spread through the bite of the *Aedes aegypti* and *Aedes albopictus* mosquitoes, which are found in tropical and subtropical areas. It can also be transmitted through sexual intercourse or sharing of sex toys, from mother to fetus, or, rarely, through blood transfusions. Although the virus is mild for most people, it has been linked in microcephaly in infants and Guillain-Barre syndrome. Despite no longer being an international emergency and receiving no current media attention, Zika is still active in many areas where college students travel to spring break, such as the Caribbean and Mexico.

**Method/Approach:** The pre- and post-surveys were created online through surveymonkey.com and were given to students at Rutgers University and Rowan University. Twenty-nine questions were chosen from the "Knowledge, Attitude, and Practice Sample Questions for Zika Virus" packet from WHO. The presurvey was given between February 23 and March 6, prior to Rutgers' spring break, and the post-survey was open from March 31 through April 6, after Rutgers' spring break. Respondents had the option of putting down their email address to be included in a raffle for a \$25 Amazon gift card. All responses were anonymous and aggregated. Informational Zika posters were put up around Rutgers campus in the period between the two surveys. Rowan acts as a control.

Outcomes/Results: Fifty-six respondents completed the pre-survey (16 from Rutgers and 40 from Rowan) and thirty-two responded to the post-survey (7 from Rutgers and 22 from Rowan). Pre-survey and post-survey differences were similar for both Rutgers and Rowan. For example, Rutgers students' knowledge of Zika transmission between the pre- and post-survey had a 0% change (100 to 100) for mosquito bites, a 36% increase (50 to 86) for sex, and a 30% increase (56 to 86) for a woman to her fetus. Rowan students for the same question had a 2% decrease (97 to 95) for mosquito bites, a 19% increase (45 to 64) for sex, and a 23% increase (50 to 73) for a woman to her fetus.

**Evaluation/Conclusion:** Due to a low sample size for Rutgers, it is difficult to determine whether the campaign was successful. However, many different factors may have affected the results, such as a personal proactiveness to learn more about Zika. In addition, results reveal the need for more effective communication about Zika information, particularly regarding sexual transmission.

Title: Women of Color and Engagement in Planned Parenthood Campaigns

Name: Patrice Williams

**Preceptors:** Rita Yelda, Public Affairs Manager

**Agency:** Planned Parenthood of Northern Central and Southern New Jersey

**Purpose:** To propose/test methods of engaging more women of color on college campuses in the activist and advocacy work of Planned Parenthood.

**Significance:** Women of color face more barriers to healthcare than their white counterparts. However, women of color are not as likely to participate in Planned Parenthood advocacy and activism. The activism and advocacy Planned Parenthood organizes is linked to the policies that determine access to care. Accessible services are integral to decreasing incidence of STI's which has risen by 35% and increasing early detection of cancers which have risen by 6.6% and 25.1% respectively since 2009 when family planning funding was cut from NJ state budget (Baum & Olesko, Tucker et al).

Method/Approach: Planned Parenthood Youth Rising Fellows conducted informal surveys and brainstormed ideas for events that would engage women of color on campus. A screening of Brown Girls, a new web series chronicling the life of a Black American woman and a queer South Asian American woman took place. The event was advertised primarily through social media, served food, and took place after scheduled classes. The event was a space for individuals who identify as a person of color to gather, get information about current events restricting access to family planning, and take home information about personal lobbying and Planned Parenthood. A convenience survey was also distributed at the event. Participants were asked about attitudes towards and likelihood of participating in Planned Parenthood activism. Responses were entered into a spreadsheet for data organization and analysis.

**Outcomes/Results:** 19 people attended the screening of Brown Girls and 19 surveys were collected. (57.9%) of participants said they had positive attitudes about Planned Parenthood. However, (42.1%) of participants said it was possible they'd participate in a traditional Planned Parenthood Community Activist Training or phone banking or legislator letter writing action. (47.4%) of participants said they wanted to be more involved with Planned Parenthood. Respondents gave examples of facebook events, emails, and more visible activism as ways to engage them more.

**Evaluation/Conclusion:** This data is preliminary with a small sample preventing generalizability to a larger population. In the future, a clarified survey with a larger sample size could provide more insight into ways to engage more women of color in Planned Parenthood activism and advocacy. Collected contact information can be used to share upcoming events.

**Title:** Fume Hood Performance Assessment

Name: Andrew Xu

**Preceptors:** Maureen Modica, Senior Industrial Hygienist

**Agency:** Rutgers Environmental Health and Safety

**Purpose:** To analyze effectiveness of current fume hood protocols at (CINJ) Cancer Institute of NJ and (CHI) Child Health Institute of NJ and propose guidelines to improve cost and safety of fume hoods.

**Significance:** Fume hoods are an essential part of a laboratory. Fume hoods create a ventilated safe space, allowing researchers to safely handle materials that would otherwise be dangerous. Fume hoods have moveable glass windows called sashes. Researchers can see their work through these sashes and sashes protect them from dangerous reactions. The constant moving of air creates stress on the building heating, ventilation and air conditioning (HVAC) system. The energy required to maintain one fume hood is estimated to be the same as three US homes ("HMS Shut the Sash,"2011). Therefore, strategies must always be implemented to maintain effective usage of fume hoods to avoid noxious gases from escaping.

**Method/Approach:** The moveable sash provides a key point of interest. Labs in CHI and CINJ have a defined full open and operating sash height. Data on hood dimensions and operating heights were taken and verified through the Rutgers Environmental Health and Safety (REHS) database. Air flow in feet per minute (fpm) was taken using a hot-wire anemometer. Energy usage was compared relative to sash height and air velocity using Berkley Fume Hood Calculator. Hood recommendations from other universities were extrapolated to provide guidelines.

Outcomes/Results: Hoods in CINJ are on a (CAV) constant air volume system and CHI hoods are on a (VAV) variable air volume system. While CAV hoods have a set fpm airflow, VAV hoods adjust their airflow relative to demand; this is based on sash height. Twelve hoods were examined in CHI and 46 in CINJ. Most hoods had opening widths of 50 inches, operating heights at 12 inches and full open heights at 30 inches. Air flow at full open showed significantly more fluctuations than at operating height. Differences of up to 90 fpm were observed at full open. However, at operating height differences were no more than 40 fpm. The projected cost per year to maintain one hood in CHI at full open is \$4,021 whereas at operating height the cost is \$1,822. By leaving the sashes at operating height, \$2,180 can be saved per hood. Multiplied by 12 for all hoods is a difference of \$26,158. Forty-six hoods were examined in CINJ. Average cost to maintain at full open is \$2,741, and cost to maintain at operating height is \$2,726.

**Evaluation/Conclusion:** For VAV hoods, leaving the sash at operating height as opposed to full open height reduces significant energy expenditure. This effect is negligible in CAV hoods because air flow remains relatively constant regardless of sash height. Lowering the operating height or closing the sash can further increase energy saving in VAV hoods. A closed and lowered sash is beneficial for all hoods because it improves containment of fumes and efficiency of exhaust.

Title: Racial and Reproductive Justice Engagement Through Program Planning

Name: Helen Zhong

**Preceptors:** Direct Supervisor: Rita Yelda, Public Affairs Manager

Project Supervisor: Christine Sadovy, Advocacy Director

**Agency:** Planned Parenthood of Northern, Central and Southern New Jersey

**Purpose:** To engage communities of color in organizing for reproductive justice by planning an event that discusses the intersections of racial and reproductive justice.

**Significance:** In New Jersey, around 100,000 people receive preventive health services from Planned Parenthood and other family planning providers each year (Baum and Olesko 2017). In 2010, Governor Chris Christie cut a \$7.45 million line item for family planning services from the New Jersey state budget and has continued to veto attempts to restore this funding. The loss of funding blocks access to family planning services. Since 2009, cases of breast and cervical cancer have increased 5.2%, with a disproportionate effect on Black and Latina women (Baum and Olesko 2017). The incidence of sexually transmitted HIV, which disproportionately affects communities of color, is increasing. This indicates a need to recognize the intersections of racial and reproductive justice and increased organizing for reproductive justice in order to restore funding and access.

**Method/Approach:** An event titled "Shades of Shackles: Black Women, Incarceration, and Reproductive Justice" featuring Professor Dorothy Roberts was organized and executed on March 2, 2017. Contact information for the attendees was collected during event registration. An exit survey was placed on every chair. The survey asked five questions about knowledge and interest and participants were asked to answer on a five level Likert scale (Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree). The responses were entered into Microsoft Excel. Data for "Strongly Agree" and "Agree" were aggregated for interpretation.

**Outcomes/Results:** There were 107 attendees at the event. 43 fully completed exit surveys were collected. All (n=43, 100%) of the respondents agreed that they understood the importance of race in reproductive justice following the event. All of the respondents also agreed that they felt inspired to advocate for reproductive justice in conjunction with racial justice following the event. The majority of respondents (n=42, 98%) agreed that they were interested in engaging with reproductive rights organizations like Planned Parenthood.

**Evaluation/Conclusion:** The high percentages of positive responses may be due to selection bias in the data. People who attended this event were likely already interested in racial and/or reproductive justice. The inspiration and interest remarked in the responses should be harnessed for organizing. E-mails and invitations to organizing events and trainings should be sent out to attendees using the contact information collected during event registration.

http://bit.ly/2nFGNXk