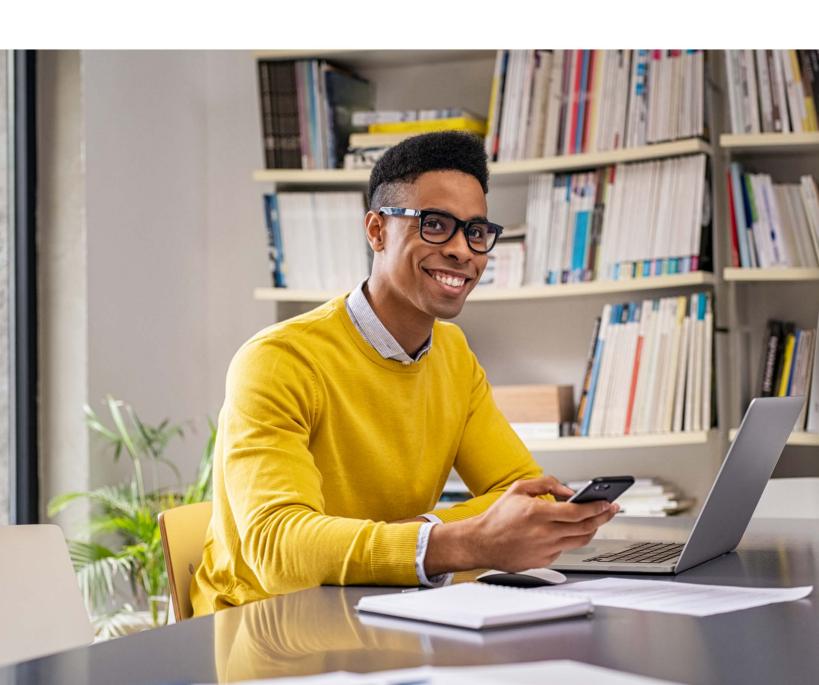


Spring 2021 Abstract Book



Traditional Internships

Capstone Projects

Fieldwork Internships

Title: Providing Access to Hygiene and Health for the Homeless in Middlesex County

Name: Noelle Abbott

Preceptors: Kelsey Lynch RN, BSN, Co-founder, Intern Supervisor

Agency: Archangel Raphael's Mission (ARM)

Purpose: To launch a community outreach program that will increase access to overall hygiene services, health information, and basic necessities to the homeless population in Middlesex County.

Significance: A Point in Time Survey estimated that on any given night in 2020, over 666 individuals were experiencing homelessness in Middlesex County, with over 59% of homeless individuals in the city of New Brunswick (Coming Home of Middlesex County, 2020). As the homeless population continues to increase, access to essential health, hygiene, and basic resources remain scarce, making it more valuable and essential than ever before. Archangel Raphael's Mission (ARM), a non-profit in New Brunswick, is dedicated to providing health and hygiene resources for the homeless community. A community outreach program will increase access to hygiene resources like soap, masks, hygiene packs, and sanitizers, as well as help facilitate the launch of ARM's new hygiene services with a mobile shower unit.

Method/Approach: To expand access to hygiene resources in the New Brunswick area, a two-pronged community outreach program was implemented. The first portion of the program focused on essential fundraising to support day-to-day operations for ARM, purchasing raw materials for hygiene care packs, and financial or physical donations for hygiene resources for daily service and the mobile shower unit. First, the fundraising campaign included targeted donation requests to the Rutgers and Bloustein School's networks as well as other potential donors, including local clubs and organizations. Then, contacts were made with third-party organizations, most notably churches and other religious groups, to set up weekly hygiene and health donations. The second focus of the community outreach program included an informational and social media campaign. This first consisted of planned weekly social media promotion, donation, and informational content aimed towards ARM donors and supporters on Twitter, Instagram, and Facebook. Lastly, informational handouts with health, hygiene, and COVID19 vaccination information were distributed weekly to the homeless community.

Outcomes/Results: Through fundraising, the community outreach program raised over \$500 via connections with Rutgers and Bloustein contacts and other third parties. These monetary donations are aiding infrastructure and materials costs for current operations and the upcoming mobile shower unit. Partnering with local clubs and third-party donors has resulted in 291 vital donations of hygiene and health care resources for the homeless. Outcomes from the social media campaign include a 283% increase in social media presence which has garnered a net increase in ARM's social media traffic.

Evaluation/Conclusion: Through data collection metrics, ARM has served an average of 50-70 clients on any given night, showing a positive increase in clients utilizing ARM's services. Partnerships with third-party donors have increased hygiene and health resource donations and their accessibility to the homeless community. The community outreach program has also helped financially support the launch of the mobile shower unit resulting in a launch planned for early May. The informational and social media campaign has also increased awareness to the community so they can donate, volunteer, or utilize this service when it becomes available.

Title: Assessment of Covid-19 Impact on Dental Office

Name: Hamza Abidi

Preceptors: Direct and Project Supervisor: Hussain Haider DMD; Head Dentist

Agency: Walker, Land, & Haider Family Dentistry

Purpose: To assess the different workflow and procedural changes due to the Covid-19 pandemic at Walker, Land, & Haider Family Dentistry.

Significance: The Covid-19 pandemic has forced significant changes to medical facilities, specifically high risk areas such as dental offices. The Center for Disease Control (CDC) as well as the American Dental Association (ADA) both have a comprehensive overview of the potential risk factors that may arise at dental offices and ways to reduce them. As of December 1st, 2020, the guidelines indicated by the CDC's website include further instruction for how dental facilities can move forward with safety protocol. In regards to the safety of patients and staff, "Regardless of setting, dental healthcare facilities should continue to apply the updated Guidance for Dental Settings as well as the guidance found in the Framework for Healthcare Systems Providing Non-COVID-19 Clinical Care During the COVID-19 Pandemic as they make determinations for providing dental care." The CDC's continuous updates of different protocols and engagements of procedures/clinical activities include "Ongoing education and training is critical for ensuring that dental health care personnel understand and adhere to infection prevention policies and procedures." As the clinical setting for dental work poses a higher risk for Covid-19 due to the nature of the work, the regulations and restrictions to dental offices are in place to keep people safe.

Method/Approach: Information regarding dental practice protocol and guidelines through the Covid-19 pandemic was obtained from reliable sources including the American Dental Association (ADA) and on a broader approach, the Centers for Disease Control (CDC). Both organizations provided information that was relevant and updated through the changing statuses of protocol based on state and federal regulations at Walker, Land & Haider Family Dentistry. After a year of the pandemic and the limitation of operating hours, a review of patients becoming more comfortable with receiving treatment was made per the updates to protocol and management of the office.

Outcomes/Results: Of the recommendations from the different sources of information provided by the CDC and ADA, modifying business hours was one adopted by Walker, Land, & Haider Family Dentistry. Increasing the amount of time between each appointment changed the pace for doctors as well as assistants to practice with Covid-19 protocols implemented. Procedural adjustments were adopted such as ordering more personal protection equipment and other sterilization equipment to keep serious health risks for patients as low as possible. To minimize risk with reviews of scholarly web pages regarding Covid-19 prevention within the clinic have been in place to keep Walker, Land, & Haider Family Dentistry compliant with patient safety.

Evaluation/Conclusion: The regulatory changes and procedural differences pre-pandemic, during the first year of the pandemic, and after one year in the pandemic proves a consistent need to update safety protocol and disease prevention in clinics. The recognition of a public health concern was realized and preventative action on a consistent basis should be taken in order to keep both patients and staff safe.

Title: Creation of a COVID-19 Reopening Plan for the Mosque

Name: Zain Ahmed

Preceptor: Direct and Project Supervisor: Mustafa H. Jafri, D.O., Chief Administrator

Agency: Healthy Living Committee of Masjid-e-Ali - Somerset, NJ

Purpose: To create a plan in the form of a proposal detailing the recommendations for reopening the mosque that will be in accordance with CDC guidelines in order to minimize the potential spread of COVID-19.

Significance: Masjid-e-Ali serves as an epicenter of the Shia Muslim community in New Jersey. Pre-COVID, the mosque was open every single day for prayers, programs, and various other services. It often was a vibrant community bringing people of all ages together. When the pandemic hit, the mosque closed its doors and even though it has opened in a limited capacity, those that enter are only the people who help run the programs. When taking this internship, the mosque wished to find a way to reopen to the general public. However, due to the ongoing pandemic, and the virus' ability to spread, religious gatherings have been shown to significantly contribute to the transmission of the virus. Thus, a plan to reopen safely and in accordance with CDC guidelines was needed in order to mitigate any potential spread while starting to make a return to the normal vibrant community that existed pre-pandemic.

Method/Approach: Initially, information about the safety guidelines for religious gatherings were collected from the Center for Disease Control (CDC). Then, the mosque's current COVID-19 safety guidelines were reviewed to see what needed to be changed in order to facilitate reopening to the general public. Attendee capacities were calculated for all the different halls and rooms within the mosque while taking social distancing into account. Following this, public health interventions like a layout and proposed cost of increased hand sanitizing stations as well as creating graphics and literature to be hung around the building were created. After this was completed, the Healthy Living Committee met to discuss this as well as other CDC regulations in regards to reopening of the mosque.

Outcomes/Results: Based on CDC regulations for indoor gatherings, new max room capacities were calculated to figure out how many people could fit in each hall or room while remaining socially distant. A max capacity of 90 people split across two halls was agreed upon in order to follow the CDC guidelines. The mosque was then decided to reopen to 90 people per program, however, these people must register ahead of time while agreeing to CDC regulations. Temperature scans would be done at the door for each person in attendance to an event with those with temperatures higher than CDC guidelines being refused entry. Eating or drinking was prohibited but during Ramadan, pre-packaged food containers are being given out to attendees to eat in their cars or at home. A budget and plan for hand sanitizer stations were looked into in terms of placement in high traffic areas within the mosque. If the mosque chooses to increase the capacity for attendance, then the board will look at this plan and choose one of the layout options given to them. Posters and literature with COVID-19 safety reminders were put up to reinforce the importance of engaging in these safe practices.

Evaluation/Conclusion: The guidelines set for reopening should be reviewed and updated every time the CDC or the NJDOH releases new regulations. It is important to note that in order to keep attendees safe, preventative measures and revaluations should be done on a consistent basis because of the public health concerns that exist due to the pandemic.

Title: Syndemic Production among MSM and transwomen ages 18-25 in New Jersey: P18 v3.0

Name: Blessing Akhabue

Preceptors: Dr. Kristen Krause, PhD, MPH, Deputy Director of CHIBPS

Agency: Center for Health, Identity, Behavior & Prevention Studies (CHIBPS) - Newark, NJ

Purpose: To describe sexual health outcomes in a group of 77 18-25 racially/ethnically/economically diverse men who have sex with men (MSM) and transgender women in Newark and the surrounding areas.

Significance: The number of men who have sex with men in the United States continues to increase, despite the advent of empirically validated therapeutic methods to reduce sexual health issues. MSM and transgender women face disproportionately high rates of depression, victimization, and anxiety, both of which encourage them to engage in risky conduct. At the Center for Health, Identity, Behavior & Prevention Studies, preceptors will guide interns through a variety of health problems that prevent MSM and transgender women from living stable, safe, and fulfilling lives. This project, which focuses on life satisfaction and suicidal ideation, will raise awareness and educate about the hidden problems that many gay men in the US face; it will also empower MSM and transgender women with knowledge. By examining how unhealthy habits evolve using baseline and additional tests, it becomes less difficult to describe risk patterns as well as the factors that predispose MSM and transgender women to unhealthy mental developments.

Method/Approach: The prevalence of suicide attempts, life satisfaction, and psychosocial correlates of men who have sex with men and transgender women were analyzed in a study of 240 people. We will learn who is fulfilled and satisfied by surveying them and seeing their perspectives on how they feel about their lives and suicidal ideations. The survey contains responses ranging from strongly disagree to strongly agree, as well as the choice of neither disagree nor agree. There is also a yes/no choice in the survey. The next step will be to build an excel sheet with all of the information presented by using the data provided. It becomes easier to find out how to spread awareness and information using the data. It also becomes much easier for me to clarify the importance of mental health and the problems that many MSM and transgender women experience as a result of their sexuality.

Outcomes/Results: Data for 76 MSM and transgender women were exported to a spreadsheet for the variable satisfaction with life. Which presented the vector: "I am satisfied with my life." Out of the 76 participants survey, 11 strongly disagreed, 10 disagreed, and 5 slightly disagreed that they were content with their lives. Another data for 88 MSM and transgender women were exported for the variables suicidal ideation. 77 were asked, "Did you ever seriously consider committing suicide in the last 12 months?" 11 confirmed to have seriously considered suicide. Those participants were also asked, "Did any attempt result in an accident, poisoning, or overdose that had to be treated by a doctor or nurse?" and 3 said their attempts did result in injury, poisoning, or an overdose that required medical attention.

Evaluation/Conclusion: Despite the need for caution when comparing survey results, the rates indicate that men who have sex with men and transgender people are more likely to attempt suicide in the future. Being a member of the LGBTQ+ community exposes you to abuse, ostracism, aggression, and discomfort, which can lead to depression, increased vulnerability, powerlessness, anxiety, and PTSD symptoms.

Title: Community Health Worker Initiative

Name: Jahanzaib Akhtar

Preceptors: Supervisor - Renata Svincicka

Agency: The Family Resource Network

Purpose: To develop a training program to educate future Community Health Workers at The Family Resource Network (FRN) in an efficient and informative manner.

Significance: Low income, as well as disabled individuals and families often suffer adverse effects of health determinants which in turn affect ability to receive care, as well as access to care. VCU details that individuals with more education are likely to learn about healthy behaviors, and have an easier time understanding their health needs and advocate for themselves (VCU, 2015). Community health workers serve to try and bridge that gap and divide created by the income/wage gap and other health determinants. Community health workers advocate for low income and in need individuals by assisting with access to health coverage, translation assistance, diagnosis processing, social support and many other forms of assistance. The Biden administration has stated that caregivers and community health workers are severely underappreciated and there are many objectives, programs, and funding for this very reason in the new plan. The new plan under the Biden Administration will create 1.5 million community health workers and care giving jobs (Biden, 2020). Thus it is important that we prepare in depth and complete training for the new and returning wave of community health workers, so that they may be better equipped to aid the underserved population. The Family Resource Network CHW project includes forming CHW training as well as acquiring grants and other funding opportunities to bolster and strengthen the community health worker workforce.

Method/Approach: Research was performed to gather information and insight into the crucial components that should constitute a thorough and comprehensive Community Health Worker Training (CHW Training). Five CHW online training programs were analyzed and observed for different components and similarities to determine the crucial components constant throughout all the observed training. General research was also conducted to determine the knowledge crucial to those in CHW positions. Grant research was explored to determine eligible and valid grants on the federal and state level that the FRN CHW training program could qualify for.

Outcomes/Results: This CHW initiative including the training program as well as the grant program will serve as an introduction to incoming and inexperienced CHWs. The training will also serve as an introduction to the Family Resource Network organization and the numerous programs available that the CHWs will assist in accordance with. In addition, grant research performed allowed for proper compilation of a list of grants that FRN may be eligible for. FRN will continue to work towards applying and receiving grant funds to further bolster the CHW training program.

Evaluation/Conclusion: Upon completion and implementation of the training program, a survey should be conducted prior to and after the subject has completed the training to test the effectiveness of the training. The survey should assess and relate to questions regarding overall gain and comprehension of CHW related information, as well as the subjects familiarity and comfortability with different concepts or principles CHWs must be aware of.

Title: Instances of SARS-COV-2 in Correctional Facilities Health Care Workers

Name: Oluwabukola Akinsola

Preceptors: Direct Supervisor: Dr. Kathleen Black

Agency: Environmental and Occupational Health Sciences Institute

Purpose: To analyze the incidence of COVID among correctional healthcare workers in different state correctional facilities in New Jersey and evaluate associations between the infection rate and the facilities.

Significance: From the first lockdown in March 2020 to now, COVID-19 has killed more than 559,000 people in the United States (CDC, 2021). In New Jersey the death toll is currently 23,383 and over 799,000 people have tested positive for COVID (NYT, 2021). There have been 2,227 positive cases among the staff in New Jersey correctional facilities and about 3 deaths. The Rutgers University Correctional Health Care (UCHC) is conducting weekly monitoring for SARS-COV-2, the virus that causes COVID-19 disease to identify how widespread the disease is amongst healthcare workers in correctional facilities using the saliva-based test that Rutgers developed. This study, in the correctional facilities, will provide insight on how COVID is being handled and if the current precautions are effective. Test results are sent to the Rutgers employee health clinic at EOHSI for evaluation and recommended for clinical care as needed.

Method/Approach: Healthcare workers in the correctional facilities took saliva tests and were given unique specimen identification number (ID#s). The test results were inputted into the REDcap database. The data collected included the subjects' sex as well as weekly COVID tests from 400-700 different employees. Double data entry was input into the REDcap database for 822 correctional facility healthcare workers. The cases were compared by the type of facility. The percentage of positive cases in women and men, and in juveniles within each facility were compared. The facilities were evaluated by finding the ratio of positive cases to facility type and the data was compared by the facility type to determine which one had the higher incidence of SARS-COV-2.

Outcomes/Results: Across the facilities, the data showed 80 positive cases in total. One facility contained both males and females, so their positive cases were disqualified which makes the new total 63 positive cases. In the ten male facilities, data showed 55 positive cases which made the rate 8.0% among workers in male facilities. In the female facility, the data showed two positive cases so the rate among workers in female facilities is 3.9%. In the juvenile facility the data showed six positive cases which makes their rate 9.1% among workers in youth facilities.

Evaluation/Conclusion: Despite there being a larger number of male facilities in New Jersey, the juvenile facilities had the highest rate of positive cases among them. However, the male facility had the highest number of cases. Some of the positive cases were not listed so the cases could not be assigned to a facility. The internship coordinators will continue to overlook the project and the interns will continue to input data. Upon completion of data entry, a larger analysis will be conducted to address multiple risk factors that include gender, facility type, and years on the job. This may assist UCHC in developing better protocols to better protect the most vulnerable workers.

Title: Understanding Maternal Health at the Epicenter of Maternal Mortality

Name: Sana Ali

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

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

Purpose: To explore health risks in pregnant women and analyze methods of improvement to maternal health outcomes in Sierra Leone.

Significance: The Maternal Mortality Ratio (MMR) of Sierra Leone is the highest globally, with 1,360 deaths per 100,000 live births. Target 5A under the Millennium Development Goals (MDG) focuses on reducing maternal mortality ratios. The target needed to be achieved by Sierra Leone in 2015 was 450 maternal deaths per 100,000 live births (Figueroa et al., 2018). The exceeding mortality rates differ significantly from the projections for this country, demonstrating the health risk mothers are experiencing and the need for increased health services and facilities. The Women's Health Institute of Robert Wood Johnson Medical School works to advance healthcare for women at the domestic and global levels. One of WHI's initiatives this year focuses on health equity. This literature review explores the common maternal health challenges mothers face and provides data on how Sierra Leone can improve health outcomes, ultimately emphasizing the importance of health equity in developing countries.

Method/Approach: A literature review conducted using peer-reviewed journal articles from scholarly databases such as PubMed and Google Scholar. Literature searches were organized to investigate three themes; maternal health complications in Sierra Leone, health systems' status given Sierra Leone's history of war and disease outbreak, and future maternal health equity implications. After analyzing the ten articles selected, a comprehensive literature review was created to raise awareness of mothers in Sierra Leone's extreme circumstances and shed light on the importance of global health equity, especially in low-income countries.

Outcomes/Results: Five research articles analyzed how the Civil War and Ebola epidemic exacerbated the health care system, which disproportionately affected women of reproductive age. Only 1.2% of emergency obstetric care facilities existed per a population size of 500,000, and 2% of births were held at these facilities (Figueroa et al., 2017). Barriers to healthcare persisted through service fees, transportation, and within facility equipment and staff shortages which were reviewed in six of the articles. One study found that 58% of facilities lacked essential delivery equipment, and only 40% of facilities had delivery rooms (Koroma et al., 2017). Five articles revealed the poor maternal health outcomes as a result of the low resource health facilities. Long operating times, delayed start times of operation, and hemorrhages all contributed to high rates of cesarean section mortalities. Hemorrhage death accounted for 73% (Holmer et al., 2019), and infections accounted for 11% of maternal deaths (Di Gennaro et al., 2020).

Evaluation/Conclusion: An evaluation of the research collected identified the most pressing issues the Sierra Leone health care system faces. Recommendations on improving maternal outcomes pushed for health equity in establishing effective health information systems prioritizing data collection in addition to increasing access and offering a better quality of maternal care through essential equipment and skilled staff. The need for increased maternal health promotion and education was a future implication also emphasized for equity-oriented social development.

Title: Robert Wood John Safety Ambassador Program Assessment

Name: Faith Amorin

Preceptors: Direct Supervisor: Diana Starace, RWJUH Injury Prevention Coordinator

Project Supervisor: Allison S. Mosier, Safety Ambassador Program Coordinator

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

Purpose: To evaluate the existing Safety Ambassador Program manual and make revisions that will improve comprehension of program operations and procedures for all participants.

Significance: Safe Kids Worldwide reports that each year 8,000 children die due to unintentional injuries. About one third of all unintentional childhood injury deaths in the US are preventable with the resources available in Northeastern states (Philippakis et al., 2004). The Robert Wood Johnson Safety Ambassador Program is focused on preventing accidental childhood injury and death by educating 1st and 2st grade students in Central New Jersey about best practices related to safety and injury prevention. Based upon RWJ Trauma Registry & Emergency Department data, the program teaches the 11st and 12st grade Safety Ambassadors four safety topics including safety in/around cars, pedestrian safety, wheeled sports safety, and fall prevention. The Safety Ambassadors develop engaging and informative lessons to present to the elementary students (ES) in a way that promotes understanding and retention of the information.

Method/Approach: The main goal of this project was to enhance the Safety Ambassador Program (SAP) to improve outcomes for ES. One of the actions taken to achieve this objective was the ongoing revision of the manual. While evaluating the presentations done by the Safety Ambassadors (SAs), it was realized that some of the key messages were not being shared with the 1st and 2st grade students. This showed an opportunity to improve the manual so that SAs and advisors are aware of the key messages and their importance. The first step was to thoroughly review the existing manual through the lens of someone who had no knowledge of the program and make notations about what aspects of the program were still unclear. The main edits included a paragraph summarizing the duties of the Resource Advisors and additional pages that clearly explained the key messages and vocabulary words for each of the safety topics. Separate checklists for each topic were also created for the SAs to complete and sign before giving their presentations. Lastly, a table of contents was created in the beginning of the manual so all the information could be easily located by any participant.

Outcomes/Results: During a regular (i.e. non-Pandemic) school year, 28 schools and 300 high school students participate in the SAP. With so many participants involved, it is imperative that the manual clearly states the program operations and as well as the safety messages. After first reviewing the manual, It was identified that indepth explanations of the roles and expectations of the Safety Ambassadors and Resource Advisors was an area in the manual with opportunity for expansion and improvement. After all the revisions, the manual lengthened from a five page to a 15-page document. The organization of the safety ambassador manual now promotes improved understanding and comprehension of the program as well as the importance of each of the key messages. These edits lead to better knowledge about program operations and topics which results in improved presentations that benefit the 1st and 2st graders.

Evaluation/Conclusion: Although the direct impact of the revisions will not be observable until the next cycle of the program, the new manual will better explain the responsibilities of all participants as well as the key safety messages. As a result, more schools may be interested in being included in the program. The amount of schools participating in this program directly correlates to the amount of children who are being educated on safe practices that can prevent them from being victims of unintentional injuries.

Title: Youth Engagement in Public Health and Civic Issues

Name: Michelle Ancil

Preceptor: Direct Supervisor: Cecilia Jackson

Agency: Youth Leadership Development Project - Princeton, NJ

Purpose: To host classes and seminars on the importance of youth education and public service projects regarding community health and civic engagement to foster accessible out of school learning to develop communication and leadership skills.

Significance: Currently, many public school students in New Jersey do not have proper health education and public health awareness present in their curriculums. Due to living in a prominent pharmaceutical and medical hub, it is increasingly important for students to understand the significance and importance of public health in daily life, as well as learn to develop communication, leadership, and outreach skills. At the Youth Leadership Development Program, instructors work with students to allow them to work on public speaking skills, connect with leaders in the community, and learn about public health initiatives right in their own hometowns. By starting small and incorporating these extracurricular activities into children's regular schoolwork, children will start to gain awareness of how crucial their voice is as a foundational level and will already have experience with reaching out to community leaders, the concepts and goals of public health, and the steps that are necessary to achieve these goals.

Method/Approach: The incoming students were asked to fill out a worksheet to detail what they knew about the subject, how it applies to their daily lives, and anything that they wanted to learn about during their seminars. Out of the 15 students being taught over the course of the spring session, 7 were able to detail what they knew about the importance of public health, but none of the 15 students could recall learning about the topic in their public school systems. The main project that the students were asked to complete with assistance was reaching out to local leaders, ranging from council representatives to environmental officials in the area to understand the implications of public health initiatives, how they came to be, and how the general public can be involved. The progress of these students were tracked via log assignments in a spreadsheet that would be checked weekly, as well as individual meetings with each student to work on their chosen topic.

Outcomes/Results: After seven weeks of the spring course, the students had completed virtual meetings with their local leader of choice and had drafted a public health initiative in their hometown in New Jersey that they wanted to be a part of (post-pandemic). These ranged from attending community meetings to volunteering at watersheds in their towns. After meeting with these leaders, students were then asked to present virtually to the class. After the project was completed on their end, the students displayed an increased knowledge of local public health issues that ranged from lack of low income clinics, presence of superfund sites, ecological hazards, and lack of proper nutrition education in public school health classes.

Evaluation/Conclusion: Over 75% of the incoming students were able to say that they learned skills regarding leadership, outreach, and community involvement. Additionally, six students said that they have made a commitment to volunteering locally and keep the connections that they made throughout the leadership program.

Title: Analytical Report of Website Users Location: Continuing Online Events

Name: Adenike Asimolowo

Preceptors: Direct Supervisor: Jaye Wilson, Melinated Moms CEO/Founder

Community Engagement Supervisor: Alexcia Harrod

Agency: Melinated Moms

Purpose: To create geographical analysis of website traffic, to determine if online events should continue after Covid-19 restrictions are lifted.

Significance: Statistics cited in First Lady Tammy Murphy's Nurture New Jersey Maternal and Infant Health Strategic Plan placed New Jersey 47th in the country for maternal deaths. Nationally Black, American Indian, and Alaskan Native women are at higher risk of facing a pregnancy related death. Melinated Moms aims to empower, motivate and teach women in the melinated spectrum (i.e, Black, Hispanic, Native American women) how to advocate for themselves through the Melinated Moms Find Your Roar Trainings. The organization provides resources, creates events, and provides the skills that members can use to address the Maternal Health crisis. As the Melinated Moms network continues to grow both nationally and internationally, understanding where members are logging in from is essential in knowing where to provide and extend resources.

Method/Approach: The Melinated Moms' website automatically stores location of where users are logging in from, these records will serve as the data for this research. Data collected was over a 3 month period starting January 19th, 2021 and ending April 7th, 2021. In this time period 1,306 people logged on to the site. The website does not provide compounded data of site users and where randomly listed, to help with organization data was moved to spreadsheet and sorted there. Data was broken down and compounded into the locations based on state or country of which users were logging on from. States that had users log in from less than 3 cities were compiled into the same data to make data cleaner, these states consisted of, MO, AZ, D.C., VA, WA, MI, CT, TN, IL, OR, OH, SC, IN, UT, MN, OK, and CO. International countries consisted of the UK, Canada, Philippines, Denmark, Russia, Mexico and Brazil.

Outcomes/Results: Of the sample size cohort (n=1,309), 740 site users (60.6%) logged on from NJ, 152 (12.4%) were from NY, 36 (2.9%), PA users, 27 FL (2.2%), MA, MD, CA, and GA had 25,24,24,24 site users respectively (2%). There were 16 (1.2%) NC users. TX, DE, and AL made up less than 1% of site users, 10,8,and 6 site users respectively. States that had less than 3 cities, and up 6.6% (81) of the data. International users consisted of 49 users (4%).

Evaluation/Conclusion: More than half (n = 740, 60.6%) of site users from the sample size cohort (n = 1,306) were from New Jersey. Numbers like this were to be expected as the organization is based in New Jersey. 39.4 % of users were based outside of New Jersey and an important population to note, 35.3% of users were from other states in America. Most international users were from either Canada or the UK. Canadian users were around 34.7% of international users while UK users were an estimated 24.5% of international users. This data proves that even after Covid-19 restrictions are lifted, online events will continue to be a helpful and effective tool for Melinated Moms, as they offer a broader reach.

Title: Using Molecular Panels to Create Specific Cancer Treatments for Individualistic Cancers

Name: Omar Baghal

Preceptors: Direct Supervisor: Christina Laird, Delegate Representative

Project Supervisor: Dr. Steven Brower, Medical Director

Agency: Englewood Health, Lefcourt Family Cancer Treatment & Wellness Center

Purpose: To identify specific genomes of individual cancers by genome mapping and then creating an individualistic treatment that is best suited for that specific patient.

Significance: In 2018 there were around 18 million new cases of cancer and 9.5 million deaths related to cancer. Cancer does not only affect those with the disease, but the family, friends, and people surrounding the patient. Englewood Hospital is trying to find more suitable and specific types of treatments for different cancers. Instead of having one broad way of fighting cancer there could end up being millions of different ways like there are millions of different types of cancer. This research project is focused on cancer at the molecular level and seeks to determine why they have become cancer cells in the first place; in essence which genome is affecting the cells to make them mutate into cancer cells. Identifying these genomes and molecular make up allow the clinicians to use targeted drug therapies to get the most impact from the patient's treatment plan. The goal of this project is to ultimately find a way to target and destroy these specific cancer cells without harming the rest of the body. If this research project is successful then there would be thousands, maybe even hundreds of thousands of different types of treatment for similar cases of cancer, due to the genome being different for each patient.

Method/Approach: Patients with specific diagnosis such as lung and pancreatic cancer patients, are sent for molecular testing using specialty labs and blood or tissue biopsies. Treatment regimen may also determine whether the patient is sent for molecular panels. When the patient is approved, the biopsy of the cancer tissue is taken, and genome mapping is used to figure out what genome has mutated and caused these cells to become cancerous. After results become available from the specialty lab. The patients' information was put into a spreadsheet where it was. The patients' information includes their name, age, tumor site, stage, mutations, and more. Now comparisons and data analysis are being done that would make the information easier and more informative. For example, comparing the patients with an A mutation and their progression of disease with patients with the B mutation, so on and so forth.

Outcomes/Results: The progression of disease table compiled a list of the top 5 most frequent mutations, KRAS, TP53, PIK3CA, KRAS/NRAS, and BRAF. The data showed that patients with the BRAF mutation had a higher likelihood of death, with the death rate being the highest out of the 5 mutations at 52.6% of patients dying. The patients with the other mutations had a very high percentage of having no change with their cancer, KRAS (35.7)%, TP53(31.5%),PIK3CA(50%), KRAS/NRAS(20%), and BRAF (26.3%). There is no significant number of patients that got better or worse with any of the mutations.

Evaluation/Conclusion: There are not enough patients in the study to get a conclusive answer to which mutation is the worst, but based on the data that has been collected, BRAF looks to be the worst. The limitations of this project would be the number of patients that could enroll into this project.

Title: Utilizing Telemedicine to Improve Health Equity within New Jersey

Name: Younass Barkouch

Preceptors: Rohit Mukherjee

Agency: GlobeConnect LLC

Purpose: To investigate and identify populations in New Jersey that require telemedicine to increase their access to comprehensive, quality healthcare services

Significance: Access to healthcare service is essential for the following reasons; promoting and maintaining health, preventing and managing disease and disability, avoiding premature death, and improving the overall quality of life. Prioritizing comprehensive, quality care can help improve health equity for all Americans. Unfortunately, within New Jersey, some populations suffer from health disparities due to inadequate or no insurance coverage, limited access to basic primary care, and the lack of availability of services and culturally competent care (Altarum, 2017). These barriers can lead to unmet health needs, preventable hospitalizations due to delays in receiving appropriate care, and financial burdens. Access to healthcare impacts an individual's physical, social and mental health, which affects their quality of life. By utilizing the New Jersey State Health Assessment Data (SHAD), I will identify specific populations within New Jersey's counties that need telemedicine services to combat health inequity.

Method/Approach: Counties that require telemedicine services will be identified through the New Jersey State Health Assessment Data (SHAD) which the New Jersey Department of Health releases. Data specific to healthcare insurance coverage will be the focus of the collection and data regarding individual inability to get needed care due to cost. These populations need telemedicine services to increase their access to healthcare and improve health equity within New Jersey. Telemedicine, a subset of telehealth, allows clinicians to provide medical services while also providing general services such as public health and medical education. Individuals who cannot afford traditional healthcare services will have access to telemedicine services for a fraction of the cost because it is remote care. Telemedicine can improve patient care by remotely managing patients with multiple chronic conditions, monitor patient health, which overall enhances service capacity and quality (ODPHP, n.d.).

Outcomes/Results: During 2017, the New Jersey State Health Assessment Data (SHAD) identified the following counties as having greater than or equal to 10% of their population not covered by any kind of health care coverage; Passaic (17.0%), Cumberland (16.7%), Union (16.3%), Hudson (16.0%), Cape May (14.0%), Essex (14.0%), Atlantic (13.1%), and Sussex (11.3%) (NJDH, 2020). Unfortunately, data displayed by geography and grouped by race/ethnicity has been suppressed because it does not meet standards of reliability or precision. However, regarding New Jersey as a whole, 28.8% of Hispanic/Latinos lacked any sort of healthcare coverage, as opposed to White, non-Hispanic (5.0%), Asian (6.3%), Black/African American (11.2%), and Other, non-Hispanic (11.5%). Overall, 10.% of New Jersey's population does not have healthcare coverage of any sort. The reason for their lack of healthcare coverage is due to the expensive cost of needed medical care. Survey data for 2017 revealed that 26.2% of Hispanic/Latinos, 23.3% of Other, non-Hispanic, 17% of Black/African Americans, 12.2% of Asians, and 9.3% of Whites could not afford the cost of primary medical care. Overall, 14% of the New Jersey population could not afford primary care.

Evaluation/Conclusion: As seen in the data provided by the New Jersey State Health Assessment Data (SHAD), approximately 10% of the New Jersey population do not have healthcare coverage, nor can they afford to pay for their medical needs. A closer look shows that different groups suffer from various problems. Hispanic/Latino, Black/African American, and Other, non-Hispanic groups are most likely not to have any healthcare coverage.

Title: Campaign for Better Representation in Middletown Township

Name: Lilly Baumann

Preceptors: Marguerite Stocker, Vice Chair of the Middletown Democrats

Agency: Middletown Democrats

Purpose: To analyze Middletown Township demographics and campaign changes to the township's local government to improve resident representation.

Significance: Due to Middletown's growing population and changing demographics, its current local system of government is no longer representative of the township. In order to increase voter participation and voter representation, a ward system, in which each of the 4-9 wards vote for a representative who together make up the township committee, is proposed. Since Middletown voters are mostly conservative but the township is incredibly large with a population of around 60,000, a ward system would allow both the more liberal and more conservative pockets of Middletown representation without being overruled by the moderately conservative majority.

Method/Approach: This project was conducted through monthly meetings where progress on petitioning and voter participation was discussed. Data analysis and policy research were completed between January 2021 and March 2021. Educational campaign presentations were created and suggestions were made on how the Middletown Democrats could reach more young voters.

Outcomes/Results: Middletown has a total of 46 voting districts. Municipal election voting records for 2017, 2018, and 2019 were analyzed. An excel sheet for 230 separate election outcomes from the 46 districts was created. Democrats had only won 24 of the 230 elections, or about 10%. Another 30 (additional 12%) elections were only won by Republicans by 1-2%. When analyzing the voting maps and how the districts are cut, it is clear to see that the pockets of Democrats are clumped together in differing parts of Middletown. A ward system would allow those Democratic districts to be represented. In addition, presentations to help the elderly and non-technical groups were created to help them understand how to complete, sign, and share petitions electronically, as well as explain how to use and share support for this cause on social media. Suggestions were presented to the committee for the fundraising and engagement of young voters such as working with local businesses, posting regularly on all forms of social media, selling merchandise, and collecting used clothing.

Evaluation/Conclusion: The petitions for a shift in the local government will start circulating during the summer months of 2021 or 2022, and so whether our efforts were successful will not be known until 2022. If the petitions are signed by upwards of 12,000 Middletown residents our project will be successful because this is sufficient to create political pressure.

Title: Social Media Performance for Live Well-Vivir Bien New Brunswick

Name: Alliah Benito

Preceptors: Manuel Castañeda, Director of Community Health

Agency: New Brunswick Tomorrow

Purpose: To compare the performance of the Live Well-Vivir Bien New Brunswick social media accounts before and after the COVID-19 pandemic.

Significance: COVID-19 has necessitated a transition to virtual platforms for both work and leisure activities. A majority of Americans reported an increase in social media consumption. The Live Well-Vivir Bien New Brunswick campaign has followed this trend by focusing on spreading awareness about virtual health-related events and resources on their social media accounts. However, as the country continues to roll out vaccinations and move towards transitioning out of COVID-19 restrictions, it is necessary to evaluate the campaign's past social media performance and make plans for future content that will remain relevant to current events.

Method/Approach: Social media analytics for two of Live Well's active accounts—Facebook and Instagram—were collected from the social media management platform Hootsuite. The analytics were split into two time periods to measure against each other: March 2019-March 2020 and March 2020-March 2021. Follower/fan counts, number of posts, engagement, and how posts communicated health information were tracked and compared to COVID-related news.

Outcomes/Results: Both Instagram and Facebook had a greater increase in followers/fans following March 2020 when COVID-19 was declared a pandemic than in the year before: Instagram gained 172 new followers and Facebook gained 107 new fans by 2021, as compared to 73 new followers and 97 new fans by 2020. Engagement on both accounts also increased overall after March 2020, even in the summer months when both accounts experienced the lowest level of engagement. Engagement count on Instagram and Facebook during July 2019 decreased to 89 and 57 respectively, while in July 2020 engagement had increased to 568 and 178 interactions. In terms of how information was communicated through the posts themselves, both accounts changed the format of their posts from mainly stock photos and simple graphics in 2019 to text-based images and infographics that had a specific focus on COVID-19 in addition to general health advice and resources following March 2020.

Evaluation/Conclusion: Both Live Well's Facebook and Instagram accounts had an overall positive change in performance in the post-COVID period as compared to pre-COVID. However, there were individual differences such as Instagram's sporadic amount of engagement, which actually saw a net decrease between March 2020-2021 while Facebook maintained a net increase. Moving forward, Live Well can continue to share content across platforms, but would benefit from modifying posts based on the account. The campaign should take advantage of Facebook's longer videos and expanded captions for topics that require more detail, such as current events, while Instagram's focus should be on expressing creativity in communicating information and establishing a visual theme to associate with Live Well.

Title: Connecting Minority and Underserved Populations with Blood Cancer Resources

Name: Jeuz Bodden, Student Intern

Preceptors: Direct / Project Supervisor: Stacy Kreizman, Senior Manager, Patient and Community

Outreach

Agency: The Leukemia & Lymphoma Society – New Jersey Region

Purpose: To address organizations assisting the minority and underserved populations, specifically the African American and Hispanic/LatinX communities, in expanding the awareness of numerous blood cancer education and support resources available through The Leukemia & Lymphoma Society (LLS).

Significance: Blood cancer rates affect populations differently, however, the minority groups in America tend to bear a greater burden. With increased awareness of education and services available through LLS, support systems, educational mindfulness, and survival rates can increase. LLS provides equal treatment, equal opportunities, and equal rights for all people. With its free services, residents in the New Jersey region, specifically the minority populous, will have further knowledge of where to turn to, should blood cancers afflict them, or their loved ones.

Method/Approach: One solution of bringing awareness to LLS, is to increase patient/caregiver engagement. An outline of twenty organizations, geared towards serving the minority population, was compiled. This approach involves searching for these organizations throughout New Jersey, electronically, and establishing a base contact to initiate the significance. The next steps include drafting an introductory email, getting it approved, then sending said email to the organizations. A follow-up phone call was then conducted to seek the organization's higher chain of command, along with a second reminder email. Of the twenty organizations contacted, only five have demonstrated interests, along with proper introductory meeting dates in place.

Outcomes/Results: In the New Jersey region, of the organizations approached (N=20), 5 organizations (25%) responded with interests in adding LLS' information and contacts to their organization's repertoire. This project is the starting point, of a larger scope yet to come. The bigger picture consists of reaching more organizations throughout NJ and hosting a patient-facing education program via Facebook Live, this June. In meeting a diverse population, this project is aimed at addressing risk factors for blood cancers, education on the signs/symptoms, an overview of the different types of blood cancers, and informing about access to quality care, if a diagnosis occurs.

Evaluation/Conclusion: This project continues as a mission priority for LLS, and exposure to new organizations increases the opportunities for future patients to benefit from materials presented bilingually (English/Spanish). Effectiveness of these efforts will be evaluated in several ways, for instance, LLS will track new patients who connect with the organization through calls to the Information Resource Center, registration at local/national education programs, application for financial assistance, and engagement in online support forums/chats. Also, while the COVID-19 pandemic has increased concerns and risks for blood cancer patients, awareness about another resource to turn to, lessens the burdens patients, and caregivers face. It is difficult to assess, in this short term, how many new individuals will become familiar with LLS, but over time, more information spreading in said communities, can allow patients and their caregivers to feel more comfortable in reaching out for help.

Internship Abstract

Title: Trends in Insurance Registration and Authorization

Name: Andrew Boley

Preceptors: Christina Laird, Director of Cancer Center Operations, Englewood Health

Hialyn Mayol, Supervisor of Patient Access Services, Englewood Health

Agency: Englewood Health- Englewood, NJ

Purpose: To analyze trends in insurance authorization based on oncology patient data.

Significance: Each year, hundreds of oncology patients' insurance goes unauthorized resulting in delays among health care providers to care for patients. In 2019, the healthcare industry saw the cost of prior authorizations requirements to insurers increase nearly 60% (Finnegan 2020). According to CMS, health entities spend \$11 per manual prior authorization compared to \$4 for a web portal. Cancer treatment is a difficult process to navigate for a patient and their family. Pre-authorization restrictions only increase the burden placed on the patient which is why Englewood Health works closely with patients and insurance companies to make the process more manageable. In the Lefcourt Family Cancer Treatment and Wellness Center at Englewood Hospital, physicians and administrative staff work diligently to understand patient coverage and the organization's revenue cycle. By noticing trends and analyzing patient insurance information, Englewood Health can save on costs while providing continuity in patient care.

Method/Approach: Patient demographic and insurance data was collected from January 2021 through April 2021. A total of 70 cases were selected for this project. Data collected included procedure type, insurance coverage, referring physician, and case status. This data was used to determine which doctors placed the most orders, which insurance coverage had the highest volumes, and which insurance coverages took the longest to process. This data was transformed into data visualizations to be included in a presentation.

Outcomes/Results: Out of the 70 patients that were included in this project, it was found that authorization varied greatly between patients based on insurance coverage and procedure type. A core of physicians lead the authorization process with 3/13 physicians placing 49% of referrals. Similarly, 42% of patients shared the same insurance coverage and were less likely to be denied compared to patients that had other coverage.

Evaluation/Conclusion: Based on this project it can be concluded that the authorization of oncology procedures varies greatly between patients and insurance coverages. With oncology procedures being so important in the process of care a patient receives, it is important that these procedures are authorized in a timely manner, which is not always the case. By analyzing the data it was determined that the insurance coverage a patient had played a significant role in the patient's ability to schedule future appointments and continue the recommended care plan presented by their physician. Patients who had one of the various Horizon plans were more likely to have referrals approved and subsequent appointments scheduled. The greatest barrier that led to denials were insufficient notes and referral information. By submitting more detailed authorization claims, the department will experience shorter wait times and fewer denials in the pre authorization process.

Title: Newark's Master Plan Urban Design

Name: Alex Bollettino

Preceptors: Dr. Chris Watson

Agency: City of Newark Office of Planning and Zoning

Purpose: To analyze and find patterns in the built environment that are overlapping in high concentrations of COVID-19 positivity.

Significance: In December 2019 the first case of COVID-19 was discovered in Wuhan, China. Since then, the virus has caused a global pandemic that has taken the world by storm. According to the COVID-19 Dashboard provided by John Hopkins University, there have been 2,971,130 deaths globally due to COVID-19. (2021) On a smaller scale, New Jersey has experienced 24,945 deaths since the start of the pandemic, and Essex county has recorded approximately 2,835 deaths due to COVID-19. (2021) With this being said, the City of Newark Office of Planning and Zoning has gathered data to understand patterns in high concentrations of the virus. Their current project is to analyze this data and compare it to the built environment of the city to see if there are any overlapping patterns.

Method/Approach: The City of Newark's Data Analytics Task Force collected various COVID-19 data since the beginning of the pandemic. In the past three months (February 2021 - April 2021), the Data Analytics Task Force collected information regarding the number of confirmed COVID-19 cases by zip code, racial identity, gender, and age. This data was then analyzed to determine whether there were any patterns of high concentrations of COVID-19 positivity within the city.

Outcomes/Results: The analysis of the data showed that there were higher concentrations of COVID-19 positivity within certain demographic groups due to the consistent nature of the data. Throughout the three months, three of the zip codes constantly had the highest prevalence of cases of COVID-19 throughout the entire city. These three zip codes were 07105, 07104, and 07107. Zip code 07105 began the study with 7,114 confirmed cases and finished the study with 8,615 confirmed cases. According to the study, the racial groups with the highest prevalence of COVID-19 were Other/Unknown (Multi-Racial), Hispanic or Latino, Black or African American. The largest racial group, Other/Unknown, began the study at 11,540 confirmed cases and finished the study with 13,221 confirmed cases. Based on the data collected the gender group with the highest concentration of COVID-19 positivity was females. Females within the City of Newark began the study with 14,453 confirmed cases and finished the study with 19,371 confirmed cases. As for the age structure of the population, the top three age groups that constantly had the highest prevalence of COVID-19 positivity were 30-39-year-olds, 40-49-year-olds, and 50-59-year-olds. The 30-39-year-old group had the highest prevalence of COVID-19 which began at 5,348 and ended the study at 7,005.

Evaluation/Conclusion: Overall, the data suggests that the highest concentration of COVID-19 positivity within the City of Newark is present within the 07105 zip code among multi-racial/other females ages 30-39. The only limitation present within this study was that data analysis was limited since the team was small. With a larger team this project can be expanded to find more patterns in the city's built environment. Future iterations of the analysis can be completed as more data is collected.

Title: Raising Awareness for Maternal Health and Building a Network for Moms

Name: Camille Branch

Preceptors: Direct Supervisor: Jaye Wilson, CEO/Founder

Project Supervisor: Alexcia Howard, Co-Founder

Agency: Melinated Moms

Purpose: To increase participation rate of Melianted Moms organization and to raise public awareness of maternal health and the policies that can affect it.

Significance: Maternal Health and Mortality sometimes goes unnoticed because it is not a problem white women experience, so it is not on the precipice of feminist agenda. According to the study <u>Racial Disparities in Maternal and Infant Health,</u> "Black and AIAN women have pregnancy-related mortality rates that are over three and two times higher, respectively, compared to the rate for White women (40.8 and 29.7 vs. 12.7 per 100,000 live births)" (2020). A Pew research study about states that, "eight-in-ten Americans say social media platforms are very (31%) or somewhat (49%) effective for raising public awareness about political or social issues, according to the survey of U.S. adults conducted July 13-19" (. What Melinated Moms is trying to do is to generate consciousness of this issue and try to effectuate policies that deter these issues in the State of New Jersey. Also social media and public awareness play an integral part to bringing sensitivity to things that usually fly under the radar.

Method/Approach: The first step in this process was to send out a primary newsletter to the community the firm had already established. The next step was to determine how many people opened the newsletter (using the Wix database) and how many people clicked on the links provided in the newsletter. The first newsletter was used as a baseline to measure how many individuals participated. Then the second newsletter was released a month later at the start of March.; this began the process of producing weekly campaigns. There would be a check-in of data at the end of the week to see how many interactions (through openings and clicks) it curated. This experiment was conducted over a month and a half.

Outcomes/Results: The first newsletter was sent out on February 7, 2021. The open rate was for the first email campaign was 29%, and the links that were clicked < 5%. For the next newsletter which occurred a month later, the opening rate of the campaign was smaller (27% open rate). As they were posted weekly, the impressions increased. The second newsletter in March was at an opening rate 35% while the links featured that were clicked were still <5%. However as the weekly emails were sent, the rate of openings steadily declined back to 29%. No matter the consistency of the posting, the rate of interaction remained the same.

Evaluation/Conclusion: Overall this experiment was unsuccessful, there was a small increase of public awareness towards maternal health, and very little engagement towards the topic. One can believe it could be the type of content that was produced. In the era of Instagram infographics, a newsletter might not be as eye catching and it might be too long for people to read. Also another problem was the short timeframe the study took place in, there wasn't enough time to fully measure it out if weekly email campaigns are a viable outreach tool. Still there was a high rate of people who did interact with the newsletter and what probably attributed to the growing numbers was the frequency at which the newsletter was released at.

Title: Partner Agency Relationship Assessment

Name: Tyler Brenckman

Preceptors: Ginny Adams Kafka, Executive Director

Agency: Anshe Emeth Community Development Program - Central Jersey Diaper Bank

Purpose: To analyze partner agencies and client information within the database to create an assessment tool to use with these agencies to strengthen relationships.

Significance: Diapers are an essential need for baby's health and development to be optimal. According to the National Diaper Bank Network in 2018, there were 310,305 children under the age of three that needed diapers in New Jersey (NDBN, 2020). In addition, there was an increase from 19% to 27% of families in New Jersey living in the ALICE Threshold in 2018 (United Way, 2020). This indicates how important the need for diapers is in New Jersey, especially after the pandemic has caused economic instability for many and it has resulted in the Central Jersey Diaper Bank to grow 300%. The Central Jersey Diaper Bank serves clients that are referred by more than 50 partner agencies such as WIC-Women, Infants, Children, PRAB-Puerto Rican Action Board, Central Jersey Health Consortium, and the Eric B. Chandler Health Center. This tool will be used to identify how to improve the referral process, how to reconnect with these partner agencies, increase yearly referrals, and to help serve families with babies in Middlesex County efficiently.

Method/Approach: To evaluate the effectiveness of the relationship with partnering referral agencies, a report was developed to extract client information from Salesforce, the agency's client relationship database, to illustrate referral trends and identify the agency's top 10 referring partners. In addition, collaboration with the Executive Director was utilized to develop a series of questions and a qualitative assessment tool to be implemented by CJDB staff. Collection of data from the evaluation tool was used to develop a report for the Executive Director and Board of Trustees Executive Committee. Demographic data was also assessed to examine how efficient the CJDB has been serving Middlesex County.

Outcomes/Results: Out of the ten agencies with the most referrals, there has been an improved relationship with the PRAB, who receives bulk orders for their plethora of clients. In addition, examining demographic data exemplified the need for serving the African American community more efficiently with each agency. Out of 2,067 clients served, only 13% were African American, which is not efficient compared to Middlesex County data. A tool was created in the database and evaluated to provide the Executive Director with a list of the top 10 agencies referring clients to the CJDB and trends about how many referrals have been sent over 18 months. The assessment tool was created with Google Forms and is being approved by the Executive Director and Board of Trustees before being implemented.

Evaluation/Conclusion: This project has enabled the AECDC-CJDB to rekindle relationships with key partners at a time when all agencies are rapidly changing. The pandemic has caused an enormous surge of people in need and this has ignited a conversation for the Board of Trustees about strategic growth and planning. Serving the African American community is a top priority and further collaborations with agencies should help alleviate this problem immensely. One limitation of this study was that some Salesforce data was left blank, and those participants were not included. Further recommendations will be made following the completion of the Google Forms assessment.

Title: Analyzing Patient Data to Expand Resources

Name: Meghan Brownlie

Preceptors: Katherine Schaible, LSW Program Director

Hiral Shukla, Outreach Coordinator

Agency: Crossroads4Hope

Purpose: To better compare the communities who are and who are not utilizing Crossroads4Hope resources, to then help integrate these resources into more diverse patient populations.

Significance: The burden of cancer in the United States is severe, according to the CDC, an estimated 23.3 million adults have been diagnosed with cancer which is about 9.4 percent. It is estimated that in 2021, 10,500 children will be diagnosed with cancer which has been rising the past few years. One in two men and one in three women will get a cancer diagnosis in their lifetime in New Jersey. More specifically, the African American population has the highest cancer burden while having the least amount of access to cancer resources (FastStats - Cancer, 2021). Cancer takes a great toll on the patient and the loved ones of anyone fighting it that it is often difficult to not feel lost and scared. Crossroads4Hope's vision is to offer a safe space to turn to, to restore your whole being and improve your and your families life beyond cancer. Crossroads4Hope has plans to better adjust their services to help the populations in need, such as the African American communities. Being able to first recognize communities in need and spread awareness about Crossroads4Hope, will ultimately help seize the burden of cancer throughout Central Jersey and beyond.

Method/Approach: After analyzing patient data, the common questions and their goals, a survey was created to be handed out in African American communities that are believed to be able to benefit from cancer support. The purpose of the survey was to help grasp a better understanding of African American populations' experiences in the healthcare system. Following that, educational tool kits were developed, on different types of cancer and cancer topics to help spread awareness and education. The tool kits include brochures, resource pamphlets, presentations, etc. The goal for the kits are to help spread awareness about causes, risk factors, signs/symptoms, screenings and treatments for cancer in hopes to catch cancer faster before it advances.

Outcomes/Results: While there are no instant results with these projects, they are helping to bridge the gaps between the African American communities and the healthcare system. All the aspects included in the projects must go through a long line of approval before being implemented. The survey results indicated a lack of knowledge along with a lack of resources, which helped Crossroads4Hope give feedback to physicians about the obstacles and concerns patients have dealt with when it comes to their medical experiences.

Evaluation/Conclusion: The expectations are to help deter the difficulty behind healthcare experiences in hopes for better outcomes, knowledge and resolving excess stress. In order to evaluate the success of these projects, every year the participants and new participants will have the chance to take the surveys again and Crossroads4hope will compare the answers from the previous year. While this may be a slow process, these small steps will lead to bigger and better outcomes for communities in the long run.

Title: Impact of the 340B Drug Discount Program at Saint Peter's University Hospital

Name: Andrew Bruno

Preceptors: Fatimah Muhammad, Program Manager of 340B Department of Pharmaceutical

Services

Agency: Saint Peter's University Hospital - New Brunswick, NJ

Purpose: To analyze the benefits and services that Saint Peter's University Hospital (SPUH) is able to provide to its patients through the 340B Drug Discount Program by examining its impact on areas such as finance, oncology, diabetes, health equity, and charity care.

Significance: More and more manufacturers and players in the healthcare industry are questioning the true value of the 340B program, arguing that covered entities use it as a means to take advantage of additional financial savings. As stated by the American Hospital Association (AHA), 340B has provided financial assistance for outpatient prescription drugs to eligible covered entities for more than 25 years. Through this program, SPUH is able to provide much needed prescription drugs at a discount and, at the same time, the hospital is able to accumulate savings. With these savings, SPUH is able to expand on their services that they are able to provide to their underserved patients and communities. According to 340B Health, these patient benefits are at great risk due to major drug manufacturers refusing to provide the 340B discount to covered entities. One of the things that SPUH continuously uses their savings for is the improvement of their How Lane Center, a Federally Qualified Health Center that many underserved patients use as a form of primary care. The CFO of SPUH, Garrick Stoldt, says that they continue to expand How Lane in order to treat more patients, but without the 340B savings, this would be unattainable and would negatively impact the community.

Method/Approach: Interviews were conducted with professionals in major roles at SPUH to assess the importance of the 340B program, such as the CFO, Director of Managed Care, Director of Finance, and members of the 340B department. Research was also collected from various white papers and reliable sources such as 340B Health. All of the data collected was used to contribute to the hospital's white paper, which outlined the 340B program, its importance, and its impact on the healthcare system. Special emphasis was placed on the Scope, Overview of 340B, 340B at SPUH, and Charity Care at SPUH.

Outcomes/Results: Currently, the project is still being worked on. At its conclusion, it will culminate in the 340B department's first white paper with the intent of publication. The paper will continue to expand on areas such as the program overview, the rules and regulations that covered entities and manufacturers must follow, the guidelines set by HRSA for the proper operation of the program, the importance it has to the underserved populations, the importance of the program for SPUH, and the implications that the program has on the healthcare industry has as a whole. It was found that SPUH is using the 340B savings to expand their How Lane Center by 25% in order to treat more patients. Evidence shows that other hospitals are using their 340B savings to invest in comprehensive language services, nurse navigating services, and other expansions of care to work towards achieving health equity.

Evaluation/Conclusion: A good measure of the project's success will be to see it reaches publication. Another appropriate method of evaluation would be a satisfaction survey amongst the members of the team who worked on it. This will gage the success in covering all desired sections in adequate detail.

Title: Inventory System Effectiveness Evaluation

Name: Gracey Butsack

Preceptors: Chris D'Andrea

Agency: Rutgers Sports Medicine

Purpose: To determine the benefits and effectiveness an inventory system can have in a sports medicine environment.

Significance: Rutgers Sports Medicine has 6 athletic training facilities across 3 different campuses. At each location, there are numerous athletic trainers, physical therapists, and interns, all of whom are using many different supplies including personal protective equipment, wound care, topicals, padding, tape, medicine, etc. Many of these necessities end up being overbought, or worse, running out because they are being used and not replaced. The goal of this inventory system is to provide cost benefits and improve the efficiency of the Rutgers Athletic Training Rooms.

Method/Approach: To develop the inventory system, the new training room had to be set up and organized. We had to assign certain cabinets to certain supplies as well as setting up the new taping table and surrounding area. All of the taping supplies were organized and stored by the taping table. Once we organized everything we could, we made an inventory list of all supplies that may need to be reordered in the future. This included all taping supplies such as kinesiology tape, compression tape, and athletic tape, first aid supplies such as different types of bandages, personal protective equipment such as gloves, sanitizer, and masks, and treatment equipment such as different compression sleeves. Once we had a comprehensive list of all necessary supplies, we created an excel spreadsheet that included an item list, the initial inventory, and the number of items used. We then added a function that subtracted the number of items used by the initial inventory of that item so that the trainers could see how much of an item they have left.

Outcomes/Results: The training room where this project was conducted is brand new and unfortunately not completely finished. The room is still waiting for more storage units and organization pieces. This fact, as well as the current pandemic, made it difficult to complete this project and analyze accurate results. Each day, there would be new items entering the training room which made it difficult to get accurate reports on how much inventory was actually there. Fortunately, once the training room is completely set up and organized, this inventory system can be used to keep track of supplies instead of the trainers relying on a guess and check system. It is expected that once the system can be used to its full potential, the process of buying new inventory will be much more efficient and cost effective.

Evaluation/Conclusion: After evaluating the poor efficiency in the current system, it is clear that implementing this new inventory system will increase the efficiency of the training room and ensure that supplies are always available. Because of the current pandemic, many items have been back ordered, if this were to happen again, necessary supplies may run out which could result in preventable injuries or illnesses. Once the system is in place, an iPad will display the spreadsheet allowing all trainers to utilize the system. In conclusion, having an accessible inventory system like this in each of the 6 athletic training rooms will guarantee that the right amount of supplies are ordered, as well as, decrease the amount of expired items that need to be discarded, providing significant savings across Rutgers Sports Medicine.

Title: COVID Safety & Efficiency Program Implementation

Name: Kathryn Byrnes

Preceptors: Dr. Vrinda Shah

Agency: Heal and Care Pediatrics

Purpose: To increase the efficiency of COVID patient influx and be able to test them and discharge them as quickly as possible to help ensure the safety and limit the exposure risk of staff and other patients.

Significance: Over the past year, the COVID-19 pandemic has proved to be a major threat to the public's health. In New Jersey, there have been about 905,000 cases and almost 25,000 deaths. Due to New Jersey's dense population and high COVID-19 numbers, it is important that the community continues to take measures to protect its citizens from the virus. At Heal and Care Pediatrics the patients' health and safety is the number one priority. The facility is continuing to function as a normal Pediatrician's office, while offering COVID-19 testing. The project being implemented aims to help improve the efficiency of the office while taking measures to protect the health of patients & staff.

Method/Approach: This will be done by the implementation of a triage questionnaire. It includes a list of COVID-19 symptoms and questions regarding direct and indirect exposure. When a patient calls to schedule a sick visit, if their symptoms sound COVID-19 related, they are screened over the phone using the questionnaire. The staff then fills out all necessary testing forms. Upon arrival, they wait in their car. When a room is available the staff will place the forms and testing specimens in the room so that it is prepared for the doctor to perform the test. Patients' check-in and check-out times are recorded. This quantitative data is input into an excel spreadsheet and formulated into a column chart measuring the duration of each patient's total office time. A trendline feature allowed for the observation of a data trend. The goal is to see a significant decrease in the duration of suspected COVID-19 patients' time spent inside the office.

Outcomes/Results: Prior to the beginning of the project, data was gathered regarding the duration of time that potential COVID-19 patients spent inside the office. This random data collection phase lasted from 2/3 to 2/8 and was collected from 10 patients. There was an observed negative trend, however the sample size was very small. Next, the program including the questionnaire was introduced and data was collected from 20 patients from 2/12 through 2/25. With a larger sample size, there was actually a *positive* trend, which meant that the duration of time spent in the office was increasing. This implies that improvements needed to be made.

Evaluation/Conclusion: It was made sure that all staff was complying and strictly implementing the questionnaire over the phone *before* the patient checked in. More attention to recording check out time needed to be made in order for our data to be precise and accurate. We therefore decided to implement another phase of data collection to see the trendline flatten out before the first week of March is over. This phase began on 2/26 to 3/6 with data from 14 patients. It was after this phase the trendline almost completely flattened. This result, as well as the result following phase one, indicated that there is a negative trend in the duration of potential COVID-19 patient's time spent in the office following the implementation of the new program. This signifies that the continuation of this program the duration of time spent will continue to decrease, as long as proper techniques are being followed

Title: Ten Steps to Take Before Pregnancy Literature Review

Name: Samantha Cacella

Preceptors: Dr. Gloria Bachmann and Dr. Alison Cabinian

Agency: Robert Wood Johnson's Women's Health Institute - New Brunswick, NJ

Purpose: To analyze data and literature surrounding impacts of preconception lifestyle changes.

Significance: Pregnancy impacts the health and well-being of both the pregnant woman and the fetus. Pregnancy entails a variety of potential outcomes and risks. Because of this, the best way to ensure the most ideal outcomes in regards to the pregnancy as well as the neonatal health outcomes is to prepare for pregnancy. Women who do not prepare have increased pregnancy risk factors. A healthy lifestyle in the preconception period can lead to a healthier pregnancy and a decreased risk of childhood morbidity and mortality (Goossens et al., 2018).

Method/Approach: Data was collected in a study analyzing preconception behavior changes in pregnant women and their impacts on the health outcomes of mother and child. In a 2018 study conducted amongst four hundred and thirty women with a planned pregnancy ending in birth, the factor of lifestyle change was measured by assessing various behaviors. The data supported that <u>unplanned pregnancies</u> are associated with an increased risk of adverse antenatal and birth outcomes, including <u>preterm birth</u>, low birth weight, increased risk of <u>congenital anomalies</u>, and developmental delay (Goossens et al., 2018). This supports the effectiveness of behavior changes pre pregnancy for neonatal health outcomes.

Outcomes/Results: 83% of women with a planned pregnancy reported more than one preconception lifestyle change. 77% of women who did not make lifestyle changes reported one or more risk factors for adverse pregnancy outcomes. Women who reported lifestyle changes were more likely to have higher education, experience no financial difficulties, or have a history of miscarriage. Research from this study has reported that unplanned pregnancies are associated with an increased risk of adverse antenatal and birth outcomes, including preterm birth, low birth weight, increased risk of congenital anomalies, and developmental delay (Goossens et al., 2018). This supports the effectiveness of behavior changes pre pregnancy are beneficial for neonatal health outcomes.

Evaluation/Conclusion: The findings suggest that preparing for pregnancy results in better neonatal health outcomes, and unplanned pregnancies are more likely to increase risk factors and result in adverse neonatal health outcomes. Women with a planned pregnancy are more likely to make preconception lifestyle changes to prepare for pregnancy, while women with unplanned pregnancies are less likely to make behavior changes or prepare. Lack of preconception lifestyle change is associated with pregnancy risk factors, with the most prevalent risk factors being alcohol use, being under or overweight, and history of obstetric complications.

Title: Impact of the COVID-19 Pandemic on Gynecologic Cancers

Name: Isabella Caputi

Preceptors: Christina Laird, Administrative Director of Cancer Center Operations

Agency: Englewood Health

Purpose: To analyze patient outcomes from the last two quarters of 2019 and compare them to those in the last two quarters of 2020 to measure the impact the COVID-19 pandemic had on treatment.

Significance: Approximately 100,000 women are diagnosed with some form of gynecologic cancer yearly. In a typical year, those women seek out treatment within a month of their initial diagnosis, but the COVID-19 pandemic prevented many women from obtaining proper care. Many surgeries were deemed elective due to the changes in state or hospital policy and were subsequently delayed or cancelled (Hartman, et al, 2020). This resulted in larger tumor sizes in women diagnosed in 2020 than diagnosed in 2019. Evidence-based research will be provided to prove the delay in cancer care due to the COVID-19 pandemic unfavorably impacted cancer diagnosis.

Method/Approach: A retrospective review of gynecologic cancer patients through the Q3 and Q4 of 2019 were compared to those in Q3 and Q4 of 2020 to establish whether the COVID-19 pandemic impacted diagnosis and treatment. Seventy-two patients were identified and their data was extrapolated from EPIC and exported to Microsoft Excel. Notable categories for research included: date of diagnosis, pathological and clinical stage, cancer type, incidental findings and their location, and tumor size.

Outcomes/Results: Of the total sample (n=69), 32 patients were diagnosed in Q3 (n=16) and Q4 (n=16) of 2019 and 37 patients were diagnosed in Q3 (n=13) and Q4 (n=24) of 2020. In Q3 and Q4 of 2019, 8 patients were diagnosed with ovarian/peritoneal/fallopian tube cancers. Seven patients were diagnosed as stage III and 1 was unstaged; the average tumor size was 7.34 cm. Seventeen patients were diagnosed with endometrial cancer, 13 had stage I, 1 had stage II, 1 had stage IV, and 2 were unstaged. Three patients underwent neoadjuvant therapy and the average tumor size was 2.9 cm. Five patients were diagnosed with cervical cancer: 2 as stage II, 1 as stage III and 2 unstaged. Two patients were diagnosed with vulvar cancer, 1 as stage I and 1 unstaged. In Q3 and Q4 of 2020, 9 patients were diagnosed with ovarian/peritoneal/fallopian tube cancers: 3 as stage I, 2 as stage II, 3 as stage III, and 1 unstaged. Two patients underwent neoadjuvant therapy and the average tumor size was 12.7 cm. Twenty-four patients were diagnosed with endometrial cancer: 15 as stage I, 2 as stage II, 5 as stage III, and 2 unstaged. One patient underwent neoadjuvant therapy and the average tumor size was 3.9+ cm. Four patients were diagnosed with cervical cancer: 2 were diagnosed with stage I, 1 with stage II, and 1 was unstaged.

Evaluation/Conclusion: A significant disparity between the number of patients presenting in Q3 and Q4 of 2019 versus 2020 was not noted, but there was an increase in patients presenting Q4 of 2020 as compared to Q3 of 2020. There was not a significant increase in the late-stage diagnosis, but there was an increase in the average tumor size. For tumors measured in 2019 and 2020, the total average tumor size (excluding outliers) was 3.11 cm and 4.42 cm, respectively.

Title: Creating a Codebook For Assessing Biases in Google Search Autocompletes

Name: David Carmona

Preceptors: Direct supervisors: Nadia Smith, Research Assistant, & Pamela Valera, PhD

Agency: Cancer Health Justice Lab, Newark, NJ

Purpose: To develop a qualitative codebook for understanding COVID-19 related Google search autocompletes between English and Spanish speakers.

Significance: Health communication and access to health information through Google searches have presented challenges in the Spanish-speaking population in the United States, given the barriers in language discordance and limited English proficiency among specific segments of the Latino community. We see the impact of language – discordance in how people understand and make decisions surrounding the COVID-19 pandemic. Society has been deeply reliant on information technology to locate up-to-date information. However, not all information is accurate, as seen in the misinformation listed in Google autocompletes. The purpose of this study was to understand how Latinos have been directly impacted by autocompletes when searching for COVID-19 information.

Method/Approach: Using a narrative approach, three focus group interview transcripts were created for, English, Spanish, and Bilingual speakers from an algorithm-based bias study. The questions explored: How did Spanish and English speakers use Google search autocompletes to make decisions during the early months of the COVID-19 pandemic? How did perceptions and circumstances of the COVID-19 pandemic inform, English and Spanish speaker's selection of Google search autocomplete? How did autocompletes influence perspective on the pandemic? All transcripts were analyzed to identify primary and secondary codes.

Outcomes/Results: There were 29 participants with a mean age of 27. Seventy-two percent identified as Hispanic/Latino, eighty-nine percent had some college or college degree, sixty-eight percent were female and thirty-one were male. The team developed a codebook that included the 12 parent and 23 children codes, inclusion and exclusion criteria to when to use the code. Two coders used NVivo software to code the transcripts and discrepancies between the two coders were discussed with a senior qualitative researcher. The intercoder reliability between the two coders was 95%.

Evaluation/Conclusion: Google autocompletes are geared towards English users and provide extensive information for people searching in English during the early months of the COVID-19 pandemic. Spanish autocompletes searches are more pessimistic, speculative, limiting, and cause more emotional distress and fear among Spanish-speaking Google users. Emotions and feelings about COVID-19 may have impacted thoughts, selection, and responses to autocompletes which could affect how people make informed decisions about health and safety. The next steps for the mixed-methods study will be to analyze the categories and identify specific themes and patterns.

Title: Project GOLD IV: Qualitative Analysis of Resilience in HIV+ and Aging Individuals

Name: Keiana Castellanos

Preceptors: Kristen Krause, Deputy Director, CHIBPS

Richard Martino, Data Manager, CHIBPS

Agency: The Center for Health, Identity, Behavior and Prevention Studies

Purpose: To develop a comprehensive codebook for efficient data analysis of qualitative interviews conducted for the Project GOLD IV study.

Significance: The prevalence of HIV among older adults has continued to rise in recent years. Adults aged 50 and older accounted for 17% for new HIV diagnoses in 2018 (CDC, 2020). In 2019, researchers at the Center for Health, Identity, Behavior and Prevention Studies launched Project GOLD IV to examine how resilience is affected by mental, social, and physical health following the experience of living and aging with HIV. Qualitative interviews with older adults living with HIV were conducted to assess resilience in aging sexual and gender minorities living with HIV. By developing a codebook, our goal is to translate existing quantitative data into quantifiable and discrete topics allowing for unbiased assessment and proper interpretation.

Method/Approach: Project GOLD IV interviewed 40 participants, with 18 identifying as female and 12 identifying as male. All participants were 50 years of age and above, who were diagnosed as HIV positive at least 10 years prior to the interview. All participants were residents of Newark, New Jersey. Qualitative analysis of existing interviews identified unique and recurring themes related to physical, emotional and spiritual well-being and social interactions. These themes comprised 12 aspects of participants' life experiences as individuals living with HIV.

Outcomes/Results: 12 themes were identified with quotes of keywords and phrases from 5 interviewees that corresponded. These themes included: Lack of HIV Awareness/Education, Lack of Access to HIV Resources, Disclosure of Status, Experience of Loss, Mental Health, Comorbidities, Giving Back to Community, Advanced Care Planning, Pregnancy and Motherhood, Addiction Recovery, Spiritual Beliefs, and Support Groups. We are able to rank the importance of each topic based on the number of interviewees who mentioned related keywords and phrases. A prevailing topic mentioned by all 5 interviewees involved spiritual beliefs and reliance on support systems. This is followed by mental health and well-being, experience of loss, addiction recovery and advanced care planning. Details of this analysis is outlined in Table 1.

Evaluation/Conclusion: The purpose of this project was to understand the experiences of aging individuals living with HIV and how they demonstrate resilience. Through qualitative analysis, discreet topics and keywords were identified useful for quantification and statistical analysis. We identified how initial stressors are typical in newly-diagnosed HIV patients, such as adapting to HIV diagnosis, disclosing status to social circles, along with the struggles of addiction and experience of loss still impacted mental health and well-being of the interviewees. Ongoing studies will focus on using this codebook to assess the level of resilience and what specific advanced care planning promoted positive well-being in interviewees.

Title: The Effect of Healthcare Disparities on Maternal Health and Mortality

Name: Isabel Chacko

Preceptors: Dr. Gloria Bachmann, Dr. Allison Cabinan

Agency: RWJMS Women's Health Institute

Purpose: To understand how healthcare disparities between mothers of color and Caucasian mothers affect maternal and prenatal health and mortality.

Significance: African American women and their infants are dying from preventable pregnancy-related complications at an exponential rate. In the United States alone, African American women face a pregnancy-related mortality rate of three to four times the rate of non-Hispanic white women. This is evidenced by research showing how socioeconomic status, education, and other factors are not protecting against this disparity. Without the proper care, many women have health issues resulting in pregnancy complications. It is imperative that we as advocates of women's health understand the cause of these discrepancies in order to begin solving them. A systematic literature review of research was completed to better understand these disparities and their effect on maternal and prenatal health.

Method/Approach: A literature review was conducted using Google Scholar and PubMed regarding healthcare disparities surrounding pregnant women and its effects on maternal and prenatal health. Twenty five articles were evaluated for relevant information, and Excel was used to divide the data into four categories, including pain management, medical advice, prenatal care, and prevention in New Jersey. The findings from these data were summarized in a report to RWJMS.

Outcomes/Results: Given the literature review, the data collected has been broken down into different areas where pregnant African American experience racism in healthcare facilities. Five articles discuss the discrepancies of pain management between pregnant black women and white women. Comparatively, 48% of the research discussed disparities in medical advice, and 28% of the research discussed the racial disparities in prenatal care. In New Jersey alone, 4 articles discussed the "Nurture NJ" initiative begun by First Lady Tammy Murphy, which is an awareness campaign committed to reduce maternal mortality and morbidity and ensure equality amongst mothers of all ethnicities.

Evaluation/Conclusion: Through the research collected, evidence suggests that the struggles African American pregnant mothers face stem from racism. Pregnant mothers lack physical and mental support during their pregnancy due to the struggles they face surrounding a predominately white healthcare system, leading to irreversible consequences. Change in certain areas such as New Jersey has already begun, with initiatives such as "Nurture NJ" catalyzing the way for maternal equality. These barriers amongst many others can all be resolved with more research and attention put towards pregnant women of color.

Title: NJPIRG Hunger and Homelessness Project Assessment

Name: Albert Chen

Preceptors: Kate Sundberg, Rutgers New Brunswick Campus Organizer

Agency: NJPIRG

Purpose: To improve the community homeless issue in New Jersey by raising awareness and increasing resources through a virtual internship.

Significance: In 2020, the number of people who are suffering from homelessness in the United States is estimated at 552,830, and it's increasing even further due to the COVID-19 pandemic. (Stasha, 2020) Specifically, in 2020, the NJCounts report 9,663 people experienced homelessness in New Jersey, which increased by 9 percent since 2019. (Matthau, 2020) Because of the poverty issue in the NJ community, the organization NJPIRG is working to improve the homeless and food insecurity by hosting fundraising events, collecting petitions, and raising awareness to the general public.

Method/Approach: Within the 83 members of the NJPIRG student organization in Rutgers University, New Brunswick, 18 interns make up the team running the Hunger and Homelessness Campaign, which focuses on food insecurity and housing issues in our community. The interns set up a weekly virtual meeting through zoom to discuss the problems and plan events and actions to address these problems. Furthermore, interns of the Hunger and Homelessness Campaign is responsible for multiple roles, such as recruiting more volunteers/interns to be involved with the campaign, hosting online fundraising events to gather money and resources for local shelters or organizations, organizing webinars with experts to educate students about various issues related to basic needs insecurities.

Outcomes/Results: In the past five months, the NJPIRG interns recruited 95 new intern/volunteer through class announcements, phone-banking and outreach events; collected 879 interest cards and 2,235 petitions for the campaigns; raised \$484 for the Rutgers Food Pantry; raised \$318 for the battered women's shelter in New Brunswick, Women Aware.

Evaluation/Conclusion: At the end of each week, the campus organizer would send the GAP analysis through email, keeping track of the progress and goal in a google spreadsheet. Furthermore, for the recruitment, often the newly recruited interns/volunteers can be seen in the next zoom meeting. Moreover, in GroupMe, the senior intern would show the donation receipt after the fundraising event. In the future, the NJPIRG Campaign will continue developing a similar community project, and might even move the in-person project after most of the people get the Covid-19 vaccine and university policy allows this type of event.

Title: Analysis of Weight Loss Plan Execution

Name: Jocelyn Cherian

Preceptors: Project Supervisor: Elizabeth Shirley, PA, On-Site Physician Assistant

Agency: The Weight Loss and Wellness Center, Livingston NJ

Purpose: To evaluate and compare the rates of patients that begin their weight loss plans prior and throughout the Covid-19 pandemic.

Significance: Obesity is an ongoing battle that continues to strike many Americans, as the prevalence continues to increase. The Centers for Disease Control and Prevention stated that in the year 2017-2018 the prevalence of obesity was 42.4% and these numbers have had a steady growth since the early 1990s into the 2000s (CDC, 2021). This is a clear indication that obesity will continue to grow and highlights the bigger issue being that obesity has had all the potential to grow, since the start of the Covid-19 pandemic. The Weight Loss and Wellness Center directly works with obese patients to guide them towards surgical and nonsurgical weight loss programs. This study will illustrate the prevalence of obese patients that are taking steps towards a weight loss plan prior to and during the pandemic.

Method/Approach: The study was conducted retrospectively which shows increases and decreases over the course of the year 2020 to 2021. The sample included all patients that made an appointment, checked in and checked out of the appointment. There were a total of 52 new patients that came into the office back in February 2020. This number significantly dropped the following month to 33 as patients were no longer interested in taking the chance of Covid 19. As the year 2020 continued, the number of new patients continued to drop until May 2020, in which the number went up to 40. The overall Covid-19 case numbers reflected increases during the same time period as cases increased from 18, 696 to 113, 856 from the month of March to April. From the month of April to May the pandemic cases increased from 113, 856 to 160,471. This pattern continues but then begins a stagnant increase that begins to level off.

Outcomes/Results: There was more than a 50% drop in the number of patients between the months of March to April, and corresponding to this were the high prevalence rates of the Covid-19 pandemic. Many spent an entire month sitting at home to avoid getting sick, but they also did not realize the high amount of food and lack of exercise had led to their weight gain. As the pandemic prevalence rates leveled from the exponential growth, it caused patients to begin seeking help for weight loss. This caused over 76% increase in patient intake in the following months.

Evaluation/Conclusion: As people began to grow in fear due to the pandemic cases, the number of patients decreased. Individuals were also sent home from work, which turned into a lifestyle of normalcy with the pandemic. The number of new patients decreased by almost half between March 2020 and April 2020. As the Covid-19 case number became steady, the interest among patients to lose weight increased. This caused an increase in patients as they realized that the pandemic created a horrible directionality towards obesity, but it all begins with the first step. This information will provide quantitative information for the Weight Loss and Wellness Center to better understand how to appeal to patients in order to move forward with a weight loss program while staying safe through the pandemic.

Title: Observing Patient Interactions with Covid Restrictions

Name: Samuel Cherian

Preceptors: Administrative Manager: Amanda Blount, Carolyn Dowan

Team Lead: Lindsay Cowen

Agency: Memorial Sloan Kettering Cancer Center

Purpose: To observe and analyze daily interactions with patients during covid restrictions at the main campus hospital of Memorial Sloan Kettering.

Significance: With accounts to the ongoing COVID-19 pandemic, healthcare institutions are forced to adjust and adapt to new healthcare protocols put forth by state and CDC guidelines. New protocols in place involve functions such as integration of telemedicine appointments and restrictions on in person patient procedures and visits. Memorial Sloan Kettering Cancer Center (MSK) televisits and phone visits comprise over 63% of total outpatient visits, and although we expect more in-person visits with slow clinic reopening, telemedicine will remain as a convenient virtual option for 89providing continuity of care (MSK, 2020). Moreover, due to the limiting capacity of patient visitors, family members must leave the patient at the clinic due to covid restrictions. My study and observations will seek to indicate how the Covid-19 practices and restrictions have altered the way Memorial Sloan Kettering is delivering cancer services efficiently.

Method/Approach: Upon patient arrival, to ensure effective patient care, CC's validated patient information starting with their DOB a simple question on which type of visit they are here for. Next, CC's ask 3 Covid related questions for patients such as symptoms, traveling outside of state, and possible exposure within the last 14 days. Within patient clinics, chairs were evenly spaced across the room in order to ensure ease for patients. In addition, with the lower amount of chair seatings in the waiting rooms, clinics utilized telemedicine appointments to allow patients to have the physician interactions to almost the same capacity prior to covid. CC's were responsible for keeping up to date with patient scheduling in person or over the phone for future visits. CC's also utilized aspects of empathy when communicating with patients. All visits were then uploaded to the "My MSK", an app portal where patients can view their upcoming visits/procedures. The importance of these steps provide measures of success to effectively deliver safe and efficient patient care.

Outcomes/Results: One form of effective communication that was brought forth during my time at MSK was the introduction of Salesforce CRM. Salesforce CRM is a project management database that utilizes checkpoint and project management analytics to help automate the patient experience on the administrative end. On the administrative end, Care Coordinator teams upload patient summaries into Salesforce in order to have a cleaner and more efficient way of communicating how many patients were seen, what appointments need to be scheduled, etc. With the rise of telemedicine appointments during covid, Salesforce has allowed for our clinical teams and administrative teams to be more up to date on understanding our loopholes for the patient experience. On the other hand, to focus on the physical approach to the changes made due to Covid 19 restrictions, many patients have happily accepted new practice restrictions and try to make their visits as efficient as possible.

Evaluation/Conclusion: To assess the success of the implementation, my managers have a meeting every two or three weeks to assess any incidents brought within our virtual and in person clinics. These meetings have served as very resourceful in orchestrating which direction our team will go while navigating through the pandemic. Any new rollouts for new changes to clinic practices are also communicated immediately via email or within those bi weekly meetings with the clinic floor.

Title: Renovate LinkedIn to Expand Services to Low Income Workers During COVID

Name: Mahwish Chishti

Preceptors: Skye Kelly, Executive Director

Agency: Heal One World

Purpose: To support low income workers wanting to better their physical and mental health with various affordable wellness programs online during stressful times due to the pandemic.

Significance: Six in 10 US adults suffer from at least one chronic disease that can affect their physical and mental health. In poorer counties in the US with majority low-income workers, chronic diseases are 9 to 15% higher compared to more affluent counties (Shaw, 2013). Heal One World works to provide low to no cost online physical and mental wellness programs to those normally who would not be able to afford expensive gym memberships or get insurance coverage for alternative health therapies across the US. According to LinkedIn's news, about 12% of low income workers are job hopping. Renovating the organization's LinkedIn page and developing content to directly reach struggling low-income workers to take part in low-cost wellness programs can help address this disparity.

Method/Approach: Research was conducted on well-known nonprofit organizations on LinkedIn. Successful content was noted to improve Heal One World's LinkedIn page. The account was inactive for over a year with no visitors, zero content, decreasing followers and no admin. The first step to renovate the page was gain access as admin and to remove 30 false employees listed on the page. Next the page's banner, logo and tagline were updated to reflect the organization's mission. Research was conducted on the current job market, job stress and health of people due to COVID to design content that reflects health issues low-income workers are facing. Relative hashtags related to COVID and the working community, a posting schedule was created to get as much viewership as possible in different time zones.

Outcomes/Results: The first scheduled posts started in March. Between March 1, 2021 and March 31, 2021 there was a 57% increase in page viewership. There was also a 119% increase in unique visitors from different work industries such as healthcare, social services, IT and business. Each post has gotten at least one share and five visitors to the main website to schedule classes in March. The page has also attained seven new followers in March. Since the start of April there have been three more visitors to the main site and nine new followers.

Evaluation/Conclusion: Based on the results so far, LinkedIn is a useful tool to reach out to a diverse community of employers, organizations and employees from different job industries. Responses from visitors who share posts suggest that visitors appreciate the information on various health facts on stress due to their experience with COVID and the services of Heal One World are useful with stress management. The organization will continue using LinkedIn by having its social media team maintain a content schedule. Add sentence about plans to keep up maintenance after you leave.

Title: Virtual Doctor Visits for Urgent Care Patients During Covid-19

Name: Naddhya Chong

Preceptors: Richard Bezozo, M.D. Owner

Cindy Gonzalez, Office Manager

Agency: Care Station Medical Group

Purpose: To ensure the community has access to quality and safe primary and urgent care services in the comfort of their own home.

Significance: As of February, 2021, New Jersey had around 755,000 positive cases and 20,432 deaths from SARS-CoV-2. The most effective methods of decreasing the risks of Covid-19 are social distancing, wearing masks, staying at home, and washing your hands. Many individuals have contacted or were exposed to Covid-19 and wish to see a physician. However, there are many obstacles that can prevent them from visiting primary or urgent care. Telemedicine has allowed an easier and safer way to receive proper care. Care Station has implemented Telemedicine for COVID-19 tests as a way to effectively and safely treat their patients, however there are many advancements that need to be addressed.

Method/Approach: Google Scholar was used to collect articles on Telemedicine. Ten articles were used that expressed the benefits of Telemedicine. Care Station Medical Group was used as a case study to further collect information on the advantages and disadvantages of Telemedicine.

Outcomes/Results: Eight of the ten articles discussed the accessibility for patients through virtual visits. Six of the ten articles felt safer with Telemedicine because it helps practice social distance and decreases the risk of exposure in person. Six of the ten articles stated cost effectiveness as a benefit of Telemedicine for patients and healthcare funding. Six of the ten acknowledged Telemedicine helps decrease the amount of patients in the hospital.

Evaluation/Conclusion: It was very difficult to find articles that rate or determine if Telemedicine offers patients the same connection they get from a normal office visit. Studies should be conducted to determine if Telemedicine will be applied to more primary and urgent care even if there is limited research on patient bonding digitally. There needs to be more research and surveys conducted on patient satisfaction with Telehealth. The project should be reviewed to evaluate if Telemedicine should remain or if patients prefer physically visiting their providers for COVID-19 visits.

Title: Assessment of Nonfatal Workplace Injuries

Name: Tamanna Chopra

Preceptors: Internship and Project Supervisor: Dr. Jeff Mollins D.C.

Agency: Total Neuro Care P.C. - Brooklyn, NY

Purpose: To analyze the various types of nonfatal workplace injuries incurred within patients at Total Neuro Care P.C. and recommend a treatment plan.

Significance: Each year, over 3 million people incur nonfatal injuries in the United States. According to the U.S. Bureau of Labor Statistics, in the state of New York, over 140,00 nonfatal workplace injuries and illnesses were reported in 2019. Thus, resulting in an incidence rate of 2.2 cases per 100 full-time workers. This is a clear indication that workplace injuries will continue to grow if patients are not properly educated and treated with methods on to decrease incidents from taking place. Total Neuro Care P.C. specializes in treating patients who have suffered from nonfatal workplace injuries. This study will illustrate the prevalence of patients who have incurred workplace injuries and which mode of treatment recommended for the improvement of the patient's health is successful.

Method/Approach: A review conducted from January 27, 2021 to April 7th, 2021 by staff from Total Neuro Care P.C. was completed to assess the various types of nonfatal workplace injuries for new male and female patients aged 17-74 within the span of 10 weeks. In those 10 weeks, 116 new patients were seen at the office for workplace related injuries. Three types of workplace injuries were reported for the 116 new patients: 1- slip and fall, 2- contact with equipment and objects, 3- motor vehicle accidents.

Outcomes/Results: Among the new patients who incurred nonfatal workplace injuries (n=116), 74 patients (64%) reported a slip and fall injury, 38 patients (33%) injured from contact with equipment and objects, and 4 patients (3%) injured at work from motor vehicle accidents. Of the 74 patients seen for a slip and fall injury, 42 identified as female (57%) and 32 identified as male (43%). Of the 38 patients injured from contact with equipment and objects, 9 identified as female (24%) and 29 identified as male (76%). Of the 4 patients injured from motor vehicle accidents 1 identified as female (25%) and 3 identified as male (75%). All patients (n=116) began physical therapy two to three times a week regardless of injury. Upon a two week follow up, 98 patients (84%) reported that their rate of pain decreased, and 18 patients (16%) reported that their rate of pain increased; slip and fall patients (n=1, 13%), contact with equipment and objects (n=3, 38%), and motor vehicle accidents (n=4, 50%). 18 patients reported an increase of pain following physical therapy treatment. All 18 patients were then recommended to a pain management specialist to create a treatment plan to better support their injury.

Evaluation/Conclusion: Overall, more than half of male patients (n=64, 55%) incurred work related injuries and female patients (n=52, 45%) incurred work related injuries. Physical therapy was the mode of treatment recommended for all patients (n=116), patients male and female (n=98, 84%) reported that their rate of pain decreased after physical therapy treatment. Therefore, it can be concluded that the treatment plan of physical therapy after incurring a work-related injury is most successful. This analysis will provide Total Neuro Care P.C. quantitative data to better assess which mode of treatment, physical therapy or pain management is best for their patients needs based on their injury.

Title: Assessing Maternal and Infant Outcomes in COVID Cases and in NJ COVID Pregnancy

Research Collaborative

Name: Azanna Clemmings

Preceptors: Direct Supervisors: Kathryn Aveni, RNC, MPH; Kayla Fowler, MPH

Project Supervisors: Charletta Ayers, MD, MPH; Pamela Brug, MD

Agency: New Jersey Department of Health

Purpose: To assess maternal and infant outcomes in cases of COVID-19 during pregnancy and analyze a research question towards creating a publishable outcome.

Significance: Pregnant women with coronavirus disease are at an increased risk for severe illness and might be at risk for preterm birth (CDC, 2020), with evidence accounting for adverse birth outcomes, and maternal morbidity and mortality. The NJDOH has been responding to the CDC's request for data on outcomes of known cases, resulting in the identification and medical record review of 6,898 cases of COVID-19 during pregnancy as of March 8, 2021. Data abstraction and case ascertainment will serve a crucial role in informing and counseling persons with COVID during pregnancy about the potential risk.

Method/Approach: Following completion of CITI Human Subjects Research training, research teams were assigned and defined by research-specific research topics. Focus groups were formulated, and research questions were developed in preparation for the NJ Health Department Institutional Review Board (IRB) application. COVID-19 Maternal & Infant Outcomes Case Ascertainment Forms were assigned to interns, and data abstraction was performed. Abstracted data were entered into the REDCap system. The data were reported to the CDC in which a Morbidity and Mortality Weekly Report (MMWR) was published on November 6, 2020, concerning Birth and Infant outcomes and pregnant women with SARS-CoV-2 infection (Woodworth KR, Olsen EO, Neelam V, et al, 2020).

Outcomes/Results: The MMWR included information from 16 public health jurisdictions including NJ's, through the Surveillance for Emerging Threats to Mothers and Babies Network (SET-NET) on pregnancy and infant outcomes among 5,252 women with laboratory-confirmed SARS-CoV-2 infection reported during March 29-October 12, 2020. The proportion of preterm live births among women with SARS-CoV-2 infection (12.9%) was 10.2% higher than that in the general population. Of the 4,442 women with known pregnancy outcomes (84.6% of 5,252 women), there were 2,315 (51.1%) with symptomatic infection, 376 (8.5%) with asymptomatic infection, and 1,751 (39.4%) with an unknown symptom status (Woodworth KR, Olsen EO, Neelam V, et al, 2020). A recent CDC publication with data reported during March 29, 2020-January 8, 2021 on 5,963 pregnant women with laboratory-confirmed SARS-CoV-2 infection presented older age (age 30-39) and underlying medical conditions as risks for moderate-to-severe or critical COVID-19 illness among pregnant mothers (Galang, RR, Newton SM, Woodworth KR, et al, 2021).

Evaluation/Conclusion: Illegible and incomplete Maternal and Infant medical records resulted in delayed data entry into REDCap. However, assigning medical records to interns improved data abstraction and internship efficiency. Data abstraction and reporting of maternal and infant outcomes will continue beyond May 2021, and specific group research questions set for IRB approval will proceed.

Title: Strengthening Families

Name: Dawn Crilley

Preceptors: Kathleen McFadden, Associate Director

Agency: Atlantic Prevention Resources

Purpose: The purpose of this program is to prevent the difficulties that are caused by substance abuse and violence. The goal is to help improve communication and coping skills, create a positive family environment, and try to prevent drug and alcohol use for several Brigantine families.

Significance: More than 760,000 people have died since 1999 from a drug overdose, and 2 out of 3 drug overdose deaths in 2018 involved an opioid. Emergency department visits for opioid overdoses rose 30% in all parts of the United States from July 2016 through September 2017. (Atlantic Preventive Resources, n.d.) Due to these alarming statistics, Atlantic Prevention Resources' main goal is to educate through prevention, treatment, and recovery support. APR consists of a substance abuse prevention department and substance abuse out-patient treatment facility, where their staff have resources available to handle individuals with both mental health and substance abuse issues. (Atlantic Prevention Resources, n.d.)

Method/Approach: This project is being conducted through weekly family sessions that consist of teaching the children how to deal with situations in a positive way and encouraging them to communicate with their parents, friends, and classmates. It also instructs the parents with useful ways to parent positively. Participation was necessary for the sessions by engaging in the conversations held each week. The instructors provided many positive and useful ways to handle difficult situations that families incur.

Outcomes/Results: This program bridges the gap between parents and children and opens the lines of communication. They do this by partnering with youth, parents, law enforcement, community leaders, and citizens of Atlantic County and empower them to bring about changes necessary to protect our youth, our families, and our future. The methods they use are very helpful to the families involved, and many of the families repeat their involvement. A federal project officer is assigned to the community to oversee their project and conducts periodic evaluations. Coalition coordinators and members participate in ongoing training to assess prevention needs, build community capacity, and plan, implement and evaluate prevention programs. (AtlanticPreventionResources, n.d.) According to surveys completed by the families involved in the Strengthening Families program, 90% said it was successful in informing them about the different ways to prevent substance abuse and improved communication with each other.

Evaluation/Conclusion: Atlantic Prevention Resources uses evidence-based practices and regularly measuring and improving performance outcomes. During the sessions, each parent expressed their concerns and they were given advice and instruction on how to handle each situation. For many, it was a relief knowing other families have experienced similar problems and talking about it helped. The only limitations occurred when the parents lived in separate homes and they were not on the same page.

Title: COVID-19 Pandemic Impact and Vaccine Communication in a Clinical Environment

Name: Molly Curley

Preceptor: Reina Smith

Agency: Montefiore Nyack Hospital / Highland Medical, PC

Purpose: To analyze the COVID-19 pandemic impact on staff in a clinical environment and develop a communication plan regarding the COVID-19 vaccine administration.

Significance: The first COVID-19 case in New York State was reported on March 1, 2020. To date, there have been over one million cases in the State alone, and 89,995 people have been hospitalized (Covid Tracking Project, 2021). While the COVID-19 statewide morbidity and mortality data for health care employees are not readily available, in the United States, 417,901 employees in clinical settings have contracted COVID-19, 6,760 have been hospitalized, and over 1,379 have died as a result of COVID-19. They work longer hours, experience grief in large numbers, and live with fear regarding their health and safety. The increased exposure to COVID-19 and the risk of mortality may negatively impact mental and physical health. The communication and administration of the COVID-19 vaccine are important to protect the overall health of employees in clinical settings.

Method/Approach: After researching pandemic impacts on health care employees, a survey was compiled featuring ten questions regarding COVID-19 pandemic experience in the workplace and vaccine attitudes. The survey was not able to be distributed to Highland Medical employees due to lengthy internal review processes, however, it was distributed to 50 healthcare workers from various organizations. The survey was conducted on the tool SurveyMonkey where four questions were asked to measure healthcare workers' experience during the COVID-19 pandemic, and six questions were asked to measure their attitudes regarding the COVID-19 vaccine.

Outcomes/Results: After the distribution of the survey to 50 healthcare workers from various organizations, there were a total of 13 responses received. The survey indicated medium percentages for stress at 54%, 38% high, 8% low, and 0% none. For employees, the stress from the pandemic affected work 31% a lot, 61% a little, 8% not at all. Workers that felt concerned for their health during the pandemic were 23% very concerned, 69% a little, 8% not at all. Eighty-five percent felt the vaccine was an important intervention at work and 15% feel it is not. One Hundred percent received information about the vaccine, 77% received the vaccine, and 23% did not. Sixty-two percent received the vaccine because of the information provided to them, 38% did not. 85% believe the information provided to them answered their questions, and 15% did not.

Evaluation/Conclusion: After reviewing the results from the survey, many healthcare employees have experienced medium levels of stress and concern for their health in the workplace but indicated that it had no significant impact on their work. Many workers believed that the administration of the COVID-19 vaccine would lower their concern about their risk at work. A communication plan and three information flyers were developed for the patients of Highland Medical Offices to communicate COVID-19 vaccine information, the availability of the vaccine, provided information on frequently asked questions about the vaccine, and post-vaccine information.

Title: Proper Admission Time and Length of Stay for Hospice Cancer Patients

Name: Isabella D'Amato

Preceptors: Volunteer Coordinator, Terry Hudak

Agency: Hospice of New Jersey

Purpose: To administer proper hospice admission time for cancer patients and ensure a peaceful process for their final days of life.

Significance: The median length of stay for an average hospice care patient is 18.7 days while more than 14% of cancer patients enroll in hospice in the last three days of life (O'Connor, 2012). This is an issue because appropriate admission time is vital for proper length of stay and an overall peaceful process. Proper admission time ensures that a patient will receive adequate critical care treatment for a higher quality of life, increased satisfaction from the family, and greater cost savings. Hospice of New Jersey strives to address these factors and provide the best care possible by following a Quality Assessment and Performance Improvement Model. This will objectively measure the organization's practices to continuously improve the quality of care for all patients.

Method/Approach: A multi-variable assessment was performed using the electronic health record system to observe the characteristics of cancer patients in coordination with their admission time and length of stay. The study was conducted over five years and included over 64,000 patients. The quality characteristics considered were basic demographics such as age, sex, race, and marital status. Observations were also recorded from type of cancer, site of care, length of admission, payer type, and those with or without comorbidities. The samples were further divided into categories of patients with a length of stay of three days or less and patients that were still alive after four days.

Outcomes/Results: Of the 64,264 patients with the primary diagnosis of cancer, 10,460 (16%) had a hospice length of stay of three days or less. The characteristics of the patients were more likely to be male (17.6%), diagnosed with leukemia (27%), have a spouse (17.3%), were ages 65 or older (16%), and of nonwhite ethnicity (16.9%). Patients admitted to hospice in a hospital (37.8%) and had commercial insurance (16.4%), Medicare (16.8%), or no insurance (15.8%) were included in those with late hospice enrollment. Lastly, those with both soft tissue and bone cancer (31.2%) and those with comorbidities (21%) were also mostly likely to be enrolled into hospice within their last three days of life.

Evaluation/Conclusion: In conclusion, knowing the characteristics of those with late hospice admission allows the hospice center to take action and educate the caregivers and family members of future hospice patients. Education is important because it brings awareness of the characteristics of patients who may need to enroll in hospice earlier to ensure that they do not go through more suffering in their final days of life. This will raise patient and family satisfaction by providing proactive services and better quality for end of life care. Hospice of New Jersey relies on outreach volunteers to provide information about hospice services and prevention to churches, colleges, and community organizations such as senior centers. Volunteers will spread knowledge through fliers, posters, and online newsletters to ensure that both the families and providers are aware of the characteristics of patients who are more at risk to help alleviate the issues of late admission times and improper lengths of stay.

Title: Increasing Social Media Traffic for MedCycle EMS

Name: Ava D'Auria

Preceptors: Chris Polgar, MedCycle EMS Chief of Operations

Agency: MedCycle EMS

Purpose: To create Instagram & Twitter accounts for MedCycle EMS as well as add posts and bring more engagement to the already created Facebook account. To also correctly track clinician certifications, so laws and regulations are followed.

Significance: MedCycle EMS only had a Facebook with minimal posts, views, and engagement prior to January 2021, so MedCycle EMS interns are working to create a Twitter and Instagram, as well as greatly add to the Facebook profile. MedCycle EMS would like to improve social media presence in order to make customers aware of services and gain more clients. The internship team is working together to post more on social media profiles and reach more people with posts. More social media traffic correlates to more customers, meaning all clinician certifications need to be up to date to practice safely.

Method/Approach: The intern team is using Facebook page insights to determine the influence of posts on Facebook. The team is able to see insights related to post reach, post engagement, followers, and page likes. To accomplish goals, interns meet with their preceptor each week to discuss past week progress and to make plans for upcoming weeks. Intern, Ava D'Auria, created the Twitter account and works to maintain and gain followers on that account. D'Auria also plans and creates posts for the Facebook account as well as analyzes insights. D'Auria also tracks CPR, ACLS, PALS, RN, EMT and Paramedic certifications and licenses in ESO Solutions to ensure all clinicians are up to date and certified to practice. The interns follow a schedule and are expected to keep up with this schedule to ensure that tasks are done on time.

Outcomes/Results: Thus far, page insights have increased greatly. For example, between March 25th to the 31st our page views have increased by 33%. The intern team posted over 105 Facebook posts from January to April and have gained 24 more followers. Regarding the Twitter and Instagram accounts, these accounts were made too recently to determine any social media improvement, but have at least 10 posts each and have gained followers. The intern team has brought more engagement to the MedCycle EMS social media pages. Regarding certification tracking, certifications have been tracked for 8 team members. Clinicians can now practice safely and legally due to accurate and timely certification tracking.

Evaluation/Conclusion: Increased engagements and followers on Facebook, as well as the creation of Twitter and Instagram has given MedCycle EMS more exposure. Social media presence is critical in this age, especially during COVID-19, and the intern team has brought more social media engagement which in turn draws more customers to MedCycle EMS.

Title: The Benefits of Social Media in Health Literacy

Name: Olukemi Dada

Preceptors: Chris Polgar, Founder of MedCycle EMS

Agency: MedCycle EMS

Purpose: To educate people about their health in a creative way and increase health literacy"."

Significance: According to the National Assessment of Adult Literacy, 9 out of 10 adults lack the necessary skills to have proper health care. Additionally, people with lower Health Literacy have lower health outcomes and are more prone to health issues than their counterparts. This project is important because it will help people who don't have the time or interest to sit down and read medical journals to learn about proper medical terminology. This project will also help with the resolution of people leaving the doctor's office confused because they are not fully aware of the medical terminologies used. Either due to their racial group, income group, or age group. This agency has found a way to inform people about their health in a creative way that will engage them and is not hard to comprehend.

Method/Approach: This project is being conducted by the use of the social media platforms Facebook and Instagram. Every week new information is being shared about different medications, the qualifications of the staff members, health awareness issues going on, etc. This information is shared in a way that attracts the attention of the audience with fun colors and pictures. As well as, broken down into simpler terms and kept short so that it will help the audience understand it better and not bore them in the process. A few topics covered are the use of a Continuous Positive Airway Pressure Therapy (CPAP), aspirin, heart attacks, stroke, glucose. Additionally, hotlines and sites for further information on topics like suicide, youth violence, eating disorders, etc.

Outcomes/Results: There were 55 posts made, 21 of them were specifically to educate people on health issues reaching as much as 170 people on one post. However, this project is not something that can be accurately measured at this time as it contributes to a much larger picture. Although the feedback from the posts have shown the potential it can have on people. This project will start a conversation about health literacy and the effect it has on individuals' health outcomes. Most doctors when talking to patients just use big terminologies such as myocardial infarction or cerebrovascular accident without using the common terms heart attack and stroke, respectively to help them understand better. The low level of health literacy is something that affects a significant amount of people in America so to have an outlet where they can learn about health and healthcare in a way that is interesting and can be understood is crucial in increasing better health outcomes

Evaluation/Conclusion: A proper way to measure the success of this project is when there is a steady growth of following on both platforms which will mean people are interested in the content shared. Additionally, when there is a dialogue between the content creators and the audience such as getting feedback on posts and topics that should be covered for future posts. A year is an ample amount of time to test the measure of this project. With social media, there are new updates constantly, that can affect the engagement of each post. So a year will be substantial to find a flow of things. A focus group can also be conducted with a group that has a low level of health literacy and measures the knowledge acquired within a year and the benefits it has.

Title: Educational Outreach Regarding COVID-19

Name: Reena Dao

Preceptors: Amanda Johnson, Program Coordinator

Agency: Food and Wellness Network, "Turning Points for Children"

Purpose: To promote COVID-19 safety and educate members of the community on ways to maintain their health in Philadelphia.

Significance: The COVID-19 virus has infected over 114 million people and killed over two million people worldwide. Unfortunately, the virus is capable of inflicting damage in several other ways beyond immediate health, such as financial security, food security and mental health. The city of Philadelphia incurred 100,000 confirmed cases of the virus, and is also in an ongoing fight against the hardships brought upon their citizens from the pandemic. The Food and Wellness Network is centered on providing meal assistance to low-income communities in Philadelphia. The focal point of this project was providing education encompassing a wide range of topics such as COVID-19 safety, general health, and financial security.

Method/Approach: First, educational posts were created and published on the Food and Wellness Network Instagram page. The content of the posts covered three general topics: COVID-19 safety, general health, and financial security. For the educational posts pertaining to COVID-19 safety and general health, the information was gathered directly from the Center for Disease Control website. Information regarding financial security and assistance was obtained from the official website of the city of Philadelphia government. After the organic posts had been published for a two-week period, the new goal was to generate more post interaction and reach more viewers. This was achieved through promoting the educational posts into advertisements on Instagram.

Outcomes/Results: After submitting approval for six educational posts to become advertisements, only three were approved. The posts containing information on food distribution sites had a 17x increase in account reach/viewers, 115 accounts initially and 1951 accounts after the promotion. The second post on the COVID-19 vaccine had a 21x increase in accounts reached, 59 accounts initially and 1,253 accounts after the promotion. The third post on the Frankford Health center in Philadelphia had an 8.5x increase in accounts reached, 86 accounts initially and 737 accounts after the promotion. No comments were gained neither before nor after posts were promoted.

Evaluation/Conclusion: After utilizing the promotion feature on Instagram, account reach and viewership rose exponentially for each educational post. More specifically, the posts experienced an increase of well over 100%. Advertising organic posts allowed for the promotion of COVID-19 safety, general health, and financial security to experience a significant level of outreach in the community on social media. As for the posts that did not receive approval, they exceeded the number of words and information that was allowed for promotional posts. Moving forward, the Food and Wellness Network will not continue to promote their organic posts because there is no funding allocated for that. The several posts that were promoted were solely part of my internship project.

Title: Oncology Patient Navigation Tracker Analysis

Name: Marly Darcelin

Preceptors: Laura Torres, Oncology Referral Coordinator

Christina Laird, Administrative Director of Cancer Center Operations

Agency: Englewood Health, Cancer Center

Purpose: To analyze Englewood 2020 Patient Tracker for an association between Patient Navigation and eliminating health disparities.

Significance: Despite 17% of the national GDP that is devoted to healthcare, health disparities still prevail in the US healthcare system (CMS, 2017). The New Jersey State Health Department set the "Eliminating Health Disparities Initiative" focused on areas like obesity, asthma, STD's, and cancer (NJDOH). The Englewood Healthcare Cancer Center provides multiple services and programs that aid in eliminating health disparities. Programs that eliminate disparities cut down on the difference in healthcare between patients with different socioeconomic status', education level, and religions. This project will aid in synthesizing the 2020 social support services data from Englewood Oncology Patient Tracker.

Method/Approach: The Englewood Health Cancer Center classified its patient tracker by tumor site; Breast, Other Cancer, Gastrointestinal & Hepatic, Pulmonary, Genitourinary, and Gynecologic Cancer. The data for each patient was updated on a constant basis, ranging from patient demographics to diagnosis and treatment dates. Data was extracted from each department spreadsheet on how many patients used the following services; Transportation (UBER Health), Charity Care, Bloodless Office, Wig Program, and Lodging. The data was then compiled into histograms and pie charts by divisions and departments as a whole. While compiling the data, recommendations were made based on how efficient the tracker was to find data quickly. Reordering, conditional formatting, and more efficient formulas were recommended.

Outcomes/Results: In 2020, Englewood Health Cancer Center navigated 1020 patients. From that total five point four percent of patients utilized transportation services, three point two percent utilized charity care, zero point three percent utilized the bloodless office option, and point zero nine percent utilized lodging. There were no patients who utilized the wig program. Another component of healthcare that may determine one's health equity is insurance. About thirty eight percent of the patients serviced by EHM in 2020 used Medicare to pay for their cancer treatment. Lastly, another contributor to health disparities is race. The majority of patients served in 2020 were Hispanic, at 45.7%.

Evaluation/Conclusion: Patient Navigation is a vital tool in eliminating health disparities that may be caused by socioeconomic status, citizenship status, educational attainment, and race. It has been proven that racial minorities and underserved populations experience "higher rates of disease, fewer treatment options, and reduced access to care" (Natale-Pereira, A., Enard, K. R., Nevarez, L., & Jones, L. A., 2011). From the data, it was revealed that the most commonly used program highlighted in this project was transportation, the most common insurance used was Medicare, and the majority of patients served belong to a racial minority. Englewood Cancer Center's patient navigation efforts have helped to reduce health disparities and improve population health in its community.

Title: When Enough is Enough

Name: Tyanna Diaz

Preceptors: Direct Supervisor: Siobhan McLoughlin, CSA Intern

Project Supervisor: Marjolein Zijdel, Peer Educator Coordinator

Agency: Rutgers Office for Violence Prevention and Victim Assistance Office

Purpose: To bring awareness, provide resources, and educate others on preventative measures for interpersonal violence.

Significance: 1 in 4 women and 1 in 7 men will experience severe physical violence by an intimate partner in their lifetime (CDC, 2017). Over half of female and male victims of rape, physical violence, and/or stalking by an intimate partner experienced some form of intimate partner violence for the first time before 25 years of age (CDC, 2010). The Office for Violence Prevention and Victim Assistance at Rutgers University has devoted 30 years, and will continue to for many more years to come on ending sexual violence, dating/domestic violence, and stalking on campus. The office is an outlet for victims and a resource for those who wish to learn more about violence prevention and/or how to support those close to them who are victims. Planning and organizing a program that brings awareness to domestic violence in a creative and educational way will highlight the severity of domestic violence, give students the opportunity to express themselves, and provide resources and words of encouragement for those in need.

Method/Approach: This project was conducted throughout the week of April 19, 2021 through April 23, 2021. White paper bags were placed outside of the VPVA Office where students were then able to pick up a bag to take home to decorate. An informational graphic was placed inside each bag in order to educate all participants on domestic violence and sexual assault. On each graphic, a formal definition was provided for each word along with common warning signs, statistics, and resources. Next to the "pick up" box was a "drop off" box where students dropped off their completed bags. On April 23rd the bags were lined outside the office to be displayed for everyone to see. A chalk board was also placed outside that read "Feel free to chalk the block", with a bucket of chalk next to the board. The chalk was placed outside to encourage students to chalk on the sidewalk and continue to bring awareness to domestic violence and sexual assault through words and drawings.

Outcomes/Results: About 25 bags were collected by Friday April 23rd. April is Sexual Assault Awareness month and at Rutgers University - New Brunswick turning the campus teal is a goal that the VPVA Office strives to achieve. This project assists in reaching that goal because it allows for students to express themselves and their thoughts on domestic violence and sexual assault. The project is inclusive, allowing for victims, bystanders, loved ones of victims, and anyone else who wishes to learn more or support the issues that sexual assault and domestic violence bring to this world everyday. The project is able to contribute to the ongoing fight for violence prevention and to educate students and faculty in both a passive and active manner.

Evaluation/Conclusion: Ultimately, being an outlet on campus for those who seek help is the most important reason for organizing the project. Receiving 25 bags during the pandemic is a successful outcome and shows that students are actively engaging in the office's social media and their activities.

Title: Ten Steps to Consider Before Pregnancy Literature Review

Name: Neve Dispenza

Preceptors: Dr. Gloria Bachmann

Dr. Alison Cabinian

Agency: Robert Wood Johnson Womens Health Institute - New Brunswick, NJ

Purpose: To study and analyze how having a child can affect a woman's life pre and post pregnancy.

Significance: As couples begin to consider conceiving a child, or when pregnancy happens unexpectedly, there are steps that should be taken in order to prepare. Ibrahim H. Al-Ayed (2010) found that childcare knowledge among mothers is shockingly deficient. The study showed that most parents lacked proper knowledge of simple childcare health matters nor understood the amount of information they were misunderstanding. Since paternal child care directly affects the child's attitude and wellbeing, a sense of understanding simple tasks should be taken into account when preparing for a child birth. The weak results among parents indicate the need for education as well as full participation from both parents.

Method/Approach: To assess the level of a mothers knowledge regarding child health care, a two-part questionnaire was distributed to mothers of children who attended the outpatient clinic of King Khalid University. The first part consisted of basic information such as the mothers age, nationality, level of education and number of children. The second part consisted of 40 statements regarding different types of healthcare concerns typically found in children. Of those who participated in the interviews proceeding the exams, a number was calculated based on the questionnaire given. Out of 40, a perfect score, a score of 25 and higher was considered satisfactory.

Outcomes/Results: Out of the 373 questionnaires completed, 51.7% of mothers were <30 years of age, 76.1% of the mothers occupation were housewives, 37.6% had university education, and 49.5% had >3 children. 60.6% of the mothers believed that formal education, such as schools or colleges, do not provide adequate child health education. Out of the common healthcare concerns found in children, and the correct answer choices, results showed incorrect knowledge on specific items. 35.1% of mothers thought fevers were linked to symptoms of serious diseases, 83.9% believed treating a child with a fever by bathing them with cold water was the best solution, and 22.5% of mothers believed that letting their child sleep in the same bed was harmless. Results conclude that the mean score of the sample showed a satisfactory level of knowledge, just above the 25 score.

Evaluation/Conclusion: Results of the study showed that mothers childcare knowledge on basic child health concerns was deficient. Limited involvement of healthcare personnel and education programs in universities are lacking. Trained classes and special sessions should be delivered by trained experts to relay correct information that could have an impact on the quality of care a child receives from their mother. Involvement in such classes should be encouraged to all mothers as education that would help pinpoint critical areas of unsatisfactory knowledge.

Title: Exploring and Addressing the Effects of Increased Digital Media Time on Adolescents' Health

Name: Manasa Dornala

Preceptors: Dr. Gabrielle McHarg, Assistant Director

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

Purpose: To disseminate the health implications of adolescents' increased digital media usage during the COVID-19 pandemic and to advocate for better policies, research, and education on this issue.

Significance: According to the 2019 Common Sense Media report, tweens are spending on average just under five hours a day using screens while teens are spending on average roughly seven and half hours a day; this does not even take into account time spent on school work (Common Sense Media, 2019). Previous studies substantiate a link between digital media use and health risks, such as musculoskeletal problems, physical inactivity, obesity, sleep disorders, and psychosocial effects (Saunders & Vallance, 2016). However, data on adolescents' mental health during the pandemic revealed that they were less depressed compared to 2018 while other studies showed that this age group was most vulnerable to anxiety and psychological problems despite using digital media as a coping mechanism (Marques de Miranda et al, 2020).

Method: Research findings on internet addiction, education technology, physical health, depression, sleep disorders, and more were reviewed and summarized weekly to learn about the latest discoveries in the field. Further inquiries were conducted to invite the most suitable researchers, parenting experts, educators, clinicians, and moderators to participate in the biweekly *Ask The Experts* webinar series. The webinars discussed various topics related to children and screens, offered advice for parents, and presented the latest research in the field. Based on this information, creative social media posts were designed on platforms including Twitter and LinkedIn to share important tips and findings while also promoting the webinar series. At the end of each month, social media metrics were collected and tracked. Lastly, a list of resources, tips, FAQs, and helpful organizations was generated for the Institute's website.

Outcomes: From January to March, there was an increase of 7.10% in followers on Twitter and a 20.27% increase in LinkedIn followers. In the three months, Twitter averaged 11,300 impressions per month while LinkedIn averaged 4,533 impressions. The social media engagements translated to webinar registrants and attendees, as well as illustrated the organization's increasing audience throughout this period. Several webinars were developed, each of which garnered an average of 697 registrations. Workshop topics included media violence (475 registrations), ocular health (836), reading in a digital age (892), parental controls (680), and the digital divide (602). This resulted in a growth of 80.8% in average registrations compared to the last four webinars which averaged around 386 registrations.

Evaluation: With the current nature of online learning and device ownership prevalence, adolescents cannot simply be left alone to manage their digital media use. Children and Screens' webinar series has created meaningful conversations about many of the effects of screen time concerning children and adolescents and has provided tools for many parents, educators, and adolescents. Further research should be produced on developing effective therapies, coping mechanisms, and policies to reduce maladaptive behaviors and detrimental health impacts of increased technology use.

Sources:https://docs.google.com/document/d/1GHZW3EAR0VXa1E9N8s3CngY1bDa6GgtUaX2mLYgsoZs/edit

Title: Account Management Program

Name: Raydy Espinal Rodriguez

Preceptors: Emmanuel Ford, Founder/ Executive Director

Agency: New Brunswick Education Foundation

Purpose: Develop a coaching program to help college students in their success through college.

Significance: There are many students that need extra help when it comes to navigating through college. The account manager program will ensure that these students get the proper resources needed to succeed through each semester. Resources will include links to help with exam preparation, articles on how to balance college, work, and personal life, and coaching on finding internships. The program will also inform students of services that they can seek on their campus, such as tutoring and extra curricular groups.

Method/Approach: Five former college students were interviewed, some who have been part of NBEF before regarding their experience in college. A list was created to identify key topic areas. Research was conducted to develop these topics into talking points between January and May. Some of the resources used included articles from different universities, Princeton Review, and other scholarly articles. Each resource topic was consolidated into talking points and sent to the supervisor for review.

Outcomes/Results: Between February and April, 10 talking points were researched and added to Word Documents for the instructors. Topics included time management, life balance, financial stability, physical and mental health, and preparation for finals. The coaches will use these resources for their students to refer to.

Evaluation/Conclusion: Overall, we are expecting these coaching programs to help students achieve college success. We are hoping that the students continue to engage and follow up with us monthly. The student attendance at the end will determine how effective the program is. We want to be able to assist with connecting students with insight from the coaches personal experience. There will be monthly coaching meetings with monthly talking points. The monthly talking points will include resources that can be used by the students. At the moment there are 60 students that will be included in the coaching program, which includes freshman and sophomores in college. We are expecting this number to grow over the year as more high school seniors will be graduating.

Title: Volunteer Engagement and Impact Assessment

Name: Ashley Farhat

Preceptors: Alexa Schmidt, Internship Supervisor & Marketing Director

Agency: Global Brigades, Inc.

Purpose: To assess how effective and sustainable medical impact is delivered/maintained abroad amidst the ongoing COVID-19 pandemic.

Significance: Global Medical Brigades currently consists of 198 chapters internationally that work in conjunction with a total of 14 communities to collaboratively resolve health disparities through the implementation of health care clinics. Upon the cancellation of in-person Medical Brigades during the COVID-19 pandemic, Global Brigades initiated a Medical TeleBrigade program in an effort to continue to deliver and maintain sustainable medical impact in countries including Honduras, Guatemala, Panama, Ghana, and Greece. A comparison of the statistical impact made by the TeleBrigade program in Honduras and the traditional in-person Brigade program was conducted to identify any significant differences.

Method/Approach: Global Brigades' monitoring and evaluation (M&E) team works at a local and international level to collect data that contributes to decision-making regarding community selection. The M&E team collaborates with countries and receives feedback from local staff and stakeholders in an effort to collect statistical reports from brigades. A comparison of in-person Medical Brigades from July 2019 to April 2020 and virtual Medical TeleBrigades from July 2020 to April 2021 was evaluated. Excel was utilized to analyze and sort the identified data.

Outcomes/Results: It was identified that a total of 6,024 patients were seen, with a total of 2,988 vision screenings having been completed, through virtual Medical TeleBrigades from July 2020 to April 2021. These results represent all patients seen on both rural clinic days and in the urban clinic, which operate separately through virtual TeleBrigades and simultaneously during in-person Brigades. In comparison to data collected from in-person Medical Brigades, a total of 17,912 patients were seen, with a total of 3,466 vision screenings having been completed, from July 2019 to April 2020.

Evaluation/Conclusion: The comparison between July 2019-April 2020 in-person Medical Brigades and July 2020-April 2021 virtual Medical TeleBrigades identified that in-person Brigades yield a higher numerical level of impact. With that being said, it is important to consider that the virtual TeleBrigade programs were just starting up in July 2020, while in-person brigades were already running in full-fledged operation in July 2019.

Title: Case Investigator/Contact Tracer

Name: Sultana Farzaie

Preceptors: Direct Supervisor: George Ellis

Project Supervisor: Ashley Jasko

Agency: Somerset County Department of Health

Purpose: To effectively control the potential spread of COVID-19 in Somerset County by identifying Case and Contacts and advising them to monitor their health for signs and symptoms.

Significance: There have been over 31.8 million cases of COVID-19 and over 568,000 deaths in the United States as of April 20, 2021 (CDC). These numbers continue to grow on a daily basis. Contact Tracing is an effective disease control approach that requires identifying cases and their close contacts to prevent further transmission of the disease. It is essential to provide proper isolation guidelines for cases and proper quarantine guidelines for contacts. By identifying and limiting contact with individuals who have tested positive for the virus, the spread of the virus to others is prevented.

Method/Approach: This project was conducted by the New Jersey Department of Health (NJDOH) in conjunction with its county partners. Contact Tracers/Case Investigators collected and recorded information from cases that led to tracking down their close contact, where finally Contact Tracing began. The process involved interviewing cases and contacts to investigate their situation as well as any public activities they took part in days leading up to their diagnosis/exposure. These activities included attending school, work, social gatherings, dining out, etc. The process also included notifying contacts of exposure, addressing questions and concerns, encouraging self-quarantine, monitoring of symptoms, and assessing the need for additional supportive services during the quarantine period (14 days from last exposure) (CDC).

Outcomes/Results: The Centers for Disease Control and Prevention states Case investigation/Contact tracing is an effective disease control method that involves identifying cases and their contacts then working with them to interrupt disease transmission. This includes asking cases to isolate and contacts to quarantine at home voluntarily. Household contacts who did not show signs or symptoms may develop them later on and test positive. Providing proper quarantine guidelines in a timely manner helps prevent individuals from spreading the virus especially since the infectious period begins two days prior to symptom onset. Contact Tracers/Case Investigators have contributed to the bigger picture by helping avoid the spread of the virus in the community. There have been over 141 million cases of COVID, 80.4 million that have recovered and unfortunately 3.01 million have lost their lives (CDC).

Evaluation/Conclusion: This project is effective and has resulted in many people obtaining the proper guidelines to keep not just themselves safe but also their friends, family and overall community. The focus of this project was to avoid further spread of the virus. The success of this project lies in communicating NJDOH guidelines to the community. This project involved time sensitive work and required great attention to detail as people's health and lives are at stake. If something is not up to date, countless issues can rise. Case Investigation/Contact Tracing is important work that aids in preventing the spread of the COVID-19 pandemic.

Title: Quality of Care for Women Suffering from Pelvic Pain

Name: Carina Ai Baba Feeney

Preceptors: Gloria Bachmann, MD, MMS, Director of WHI

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

Purpose: To understand the impact and outcomes of pelvic pain disorders and its application to the quality of healthcare.

Significance: Fifteen percent of women of childbearing age and nearly half of expecting mothers suffer from pelvic pain. In the United States, about three billion dollars is spent annually on direct costs for both physical and mental care for those suffering from pelvic pain. Pelvic pain is multifactorial and its burden on the individual varies. Pelvic pain is notably more common in younger individuals in their reproductive years, emphasizing the need for comprehensive care. The Women's Health Institute at Robert Wood Johnson Medical School aims to bring awareness to the impact pelvic pain has on women to drive medical care advancements regarding diagnosis and treatment.

Method/Approach: A two-part literature review was conducted. The first one aimed at understanding the impact of pelvic pain while the other identified the barriers in healthcare that exist for women suffering from pelvic pain. Google Scholar, The National Center for Biotechnology Information, and Pubmed were utilized to gain insight on these topics through evaluating peer reviewed research journals. In using key phrases such as "quality of healthcare", "pelvic pain disorders", and "barriers to care", twelve journals were found to be especially insightful.

Outcomes/Results: The literature research revealed major concerns for women that suffer from pelvic pain and indicated areas of much needed improvement regarding the quality of care. Of the five journals that highlighted the outcomes of pelvic pain, all of them discussed that quality of life was a concern. Four of them specifically emphasized the increased rate of depression and anxiety and all five discussed limitations or interference in everyday activities. Furthermore, the seven pieces of literature that focused on barriers to optimal care for pelvic pain highlighted several issues. First, all literature on this topic discussed the difficulty in diagnosis. One journal specifically acknowledged the small percent of their study sample that received a diagnosis following medical evaluation. Secondly, three journals discussed the difficulty in prescribing a proper course of treatment due to the unpredictable nature of pelvic disorders. Lastly, trivialization of symptoms by medical professionals was discussed in six of the journals.

Evaluation/Conclusion: Delays in the process of diagnosis and treatment of pelvic pain disorders were common. This often exacerbated the detrimental impact on the individual's mental and physical well being. The lack of validation by medical professionals also attributes to this delay in care. Trivialization of symptoms not only prolongs the physical pain but attributes to the burden of pelvic pain mentally. Cultivating a more empathetic environment in healthcare settings for patients suffering from pelvic pain can be achieved through implementing education interventions specific to the complexities of chronic pelvic pain for healthcare professionals. An ongoing project at the WHI is aimed to determine the impact of pelvic floor disorder symptoms on quality of life and the outcomes with standard of care therapies in patients treated in the Urogynecology/FPMRS practice at Rutgers since 2010. In doing so, we can apply findings from this literature search and this project to our immediate community.

Title: COVID-19 Vaccination Clinic Project

Name: Francesca Ferrari

Preceptors: Kwaku Gyekye

Agency: Jersey City Medical Center

Purpose: To vaccinate RWJBarnabasHealth employees and community members against COVID-19 in Hudson County and surrounding areas.

Significance: As of March 3, 2021, there have been a total of 710,046 total cases of COVID-19 in New Jersey and 21,052 total confirmed deaths. Starting December 2020, Pfizer and Moderna have released a two-dose mRNA vaccine in efforts to combat COVID-19. Jersey City Medical Center obtained doses of both vaccines from the State of New Jersey and established vaccination clinics among three locations. The RWJBarnabas Health - Jersey City Medical Center vaccination clinics are striving to vaccinate employees and qualified community members in efforts to decrease the incidence of COVID-19 and to protect the community during the current global pandemic.

Method/Approach: Between January 22, 2021 and May 6, 2021 6,820 patients were scheduled for vaccinations. Shadow appointments, where HealthConnect links were sent to patients for them to schedule their own appointment, were not successful. The Jersey City Medical Center Vaccine Clinic team decided it would be more beneficial to schedule patients directly. Approximately 50 patients were scheduled directly each day, and approximately 46 appointment slots were available to the public for a total of 96 first doses administered per day.

Outcomes/Results: Between January 22, 2021 and April 15, 2021, 3,352 first doses of a COVID-19 Vaccine, either Moderna or Pfizer, and 3,459 second doses were administered at Jersey City Medical Center. Between January 27, 2021 and April 8, 2021 242 first doses and 392 second doses were administered at the Satellite Emergency Department at Bayonne. Between January 27, 2021 and April 8, 2021 242 first doses and 392 second doses were administered at Greenville.

Evaluation/Conclusion: With vaccinating over six thousand patients, RWJBarnabas Health has made an extreme impact on the community in efforts to protect them from COVID-19. One challenge was using all the vaccines before the syringes expired. It was challenging when people did not show up or showed up late to their vaccine appointment as the vaccine must be administered in a short window of time. A policy we followed was to vaccinate employees or employee family members when there were no shows to ensure the vaccine did not go to waste. While this was difficult to do at the time, we managed to keep our waste at approximately zero. A recommendation to improve the clinic is to try to figure out a better way to schedule elderly patients who may not have or know how to use a smartphone. As this was the most current way to schedule an appointment, finding alternatives will allow appointments to be available to a wider variety of people.

Title: Marketing and Awareness of Health and Wellness through Social Media

Name: Nikki Fraser

Preceptors: Rachel Cortese: Ambulatory Care Facility Administrator, Human Resources Controller

Agency: NorthEast Spine and Sports Medicine

Purpose: To considerably increase new patient flow and activity through marketing strategies on different social media platforms such as Instagram and Facebook as well educating our patients on maintaining a healthy life.

Significance: Physical therapy, chiropractic care, occupational therapy, acupuncture care, and pain management works to alleviate pain and improve the patient's quality of life. According to the CDC chronic pain is one of the most common reasons adults seek medical care and has been linked to restrictions in mobility and daily activities, dependence on opioids, anxiety and depression, and poor perceived health or reduced quality of life. Integrative medicine inpatient treatment has been shown to improve physical and mental health in patients with internal medicine conditions. NorthEast Spine and Sports Medicine works to integrate pain management conservative care to treat a multitude of conditions. This project focuses on increasing patient flow to the office and to reach patients in need of treatment.

Method/Approach: To measure the effectiveness of the promotional strategies to increase patient flow all patient visits were tracked from December 2020 to March 2021. The main objective throughout the internship was to feature the importance of treating chronic pain and educate patients on maintaining a healthy life. Different Instagram and Facebook stories were posted throughout the week. Weekly health feature articles were posted each Wednesday to educate patients on various health concerns. New brochures were created to educate patients on the benefits of acupuncture on chronic pain disorders. A slide show was created to display the services (physical therapy, occupational therapy, chiropractic, acupuncture, and pain management physicians) offered at the office including all providers with their photos and a small bio. This slideshow runs while the patients are sitting in the waiting room and while the patients are in exam rooms.

Outcomes/Results: In December of 2020 the office saw a total of 380 patients with six new patients. In January 2021 the office saw a total of 401 patients with seventeen new patients. In February of 2021 the office saw a total of 328 patients with nineteen new patients. In March 2021 the office saw a total 531 patients with 25 new patients. After month one there was a 5.5% increase in patients in the office and thirteen new patients. After month two there was unfortunately a decrease in active patients of -18.2 percent but with an increase six new patients for the month. This decrease was determined to be due to an increase of COVID-19 cases after the holidays. The business Facebook has an increase of 23 follows between December 2020 and March 2021. The business Instagram had an increase of 36 followers between December 2020 and March 2021.

Evaluation/Conclusion: The office had a considerable increase of new patients and active patients between December 2020 and March 2021. This clearly displays the growing importance of social media marketing in reaching patients. The biggest issue with social media marketing is reaching adults aged 50 and above. Unfortunately, this demographic of individuals is the one most in need of pain management for chronic conditions is the hardest to reach via social media marketing. Marketing through traditional routes like radio and paper ads are still very effective at reaching this demographic. Overall, social media marketing will be increasingly effective as social media overtime.

Title: Qualitative Analysis of the Impact of Aging on Individuals with HIV

Name: Lily Friedman

Preceptors: Dr. Kristen Krause, PhD, Deputy Director

Agency: Center for Health, Identity, Behavior & Prevention Studies (CHIBPS) - Newark, NJ

Purpose: To create a codebook using qualitative data from interviews conducted with people 50 years old and older living with HIV/AIDS.

Significance: By 2025, people age 50 and older will make up the majority of the population living with HIV/AIDS in the United States. This aging population faces their own unique mental and physical challenges related to living with HIV/AIDS and being on long-term antiretroviral treatment. Many older people living with HIV/AIDS did not expect to reach this stage of older adulthood at the time of their diagnosis, so now they are experiencing difficulties around advanced care planning. This study sought to understand the experiences of people 50 years old and older living with HIV/AIDS in Newark, New Jersey.

Method/Approach: Qualitative interviews were conducted by trained research assistants in order to collect data about HIV/AIDS and aging. These interviews occurred between March and June 2019 in the greater Newark, New Jersey area. Research assistants obtained written consent from 40 individuals before completing the semi-structured 45-90 minute interviews. Each interview was then transcribed by research interns and verified by other senior members of the research team. 5 of these interview transcriptions were reviewed in order to create a codebook of central, recurring themes shared by participants in order to further understand how HIV/AIDS impacts aging.

Outcomes/Results: The participants' ages ranged from 51-69 years old with the cohort being made up of 18 women and 22 men. Out of the 40 participants, 37 identified as Black non-Hispanic while the other 3 identified as White non-Hispanic or "other". One of the most common themes identified from the interviews was fear of not being financially stable enough to sustain themselves as they entered later adulthood, especially in regard to life insurance policies or retirement funds. Another was general mistrust of physicians stemming from the stigmatization of HIV/AIDS and lack of access to quality healthcare or health insurance. Additionally, while some participants mentioned having a support system of family and friends, many others did not and therefore have not thought about advanced care planning because they are focusing on living day-to-day.

Evaluation/Conclusion: As the older population of people living with HIV/AIDS in the United States continues to age, it is clear that there must be an improvement in support and resources available to them to help relieve some burden of advanced care planning. Healthcare professionals must be trained and encouraged to address advanced care planning in routine medical and social support visits so that patients feel better prepared to care for themselves as they age. Additionally, some participants still felt shame surrounding their HIV diagnosis which discouraged them from reaching out to healthcare professionals for help. There must also be a continued conversation about the normalcy of living with HIV, and patients should be provided resources on how to comfortably address their diagnosis with friends and family to alleviate some emotional strain.

Title: Literature Review on the Role of Partners During Pregnancy

Name: Ishaa Gadkari

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

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

Purpose: To conduct a literature review on the impact partners have on pregnant women, as well as on the health outcomes of the newborn.

Significance: Although pregnant women carry the baby, partners may have a larger role than previously thought during a pregnancy. According to the American College of Obstetricians and Gynecologists, women who have a supportive partner during pregnancy are more likely to give up harmful behaviors. Babies may be born healthier, with lower rates of preterm birth. With this information, more research, education, and interventions can be proposed to target partners in order to improve the health outcomes of pregnant women and their newborns.

Method/Approach: Google Scholar was the first database searched with the keywords "alcohol consumption partners of pregnant women". Four studies were relevant. The second database searched was Academic Search Premier which yielded one study. Academic Search Premier, PubMed, and JSTOR were also used with the keywords "pregnant women and smoking and partners" which resulted in seven usable studies. PubMed was used with the keywords "pregnant women and partners and violence". Six studies were relevant.

Outcomes/Results: The literature review explored partners of pregnant women with regard to alcohol consumption, smoking, secondhand smoke (SHS), and intimate partner violence (IPV). Five studies found evidence that partners' alcohol consumption influenced pregnant women's alcohol consumption. Three studies found evidence that pregnant women were more likely to consume alcohol if their partner drank as well. One study found evidence that an intervention in the reduction of women's prenatal alcohol consumption was effective when the partner was included. One study found that supportive partners during pregnancy were associated with decreased alcohol use in pregnant women. Five studies found that partners' smoking behaviors had a significant impact on pregnant women's smoking behaviors. Three studies found that maternal smoking during pregnancy was significantly associated with partner smoking. Two studies found that workplace smoking and workplace smoke exposure was associated with partner smoking which was further associated with maternal smoking. Two studies found that SHS exposure from partners impacted the health of pregnant women and their babies. Six studies found evidence that women who suffered from IPV experienced adverse pregnancy outcomes.

Evaluation/Conclusion: This literature review focused on cisgender heterosexual pregnant women and their male partners. More research must be done on pregnant LGBTQ+ individuals and their partners, such as same-sex couples and pregnant transmen and their partners. More antenatal research needs to be done on this minority population due to the unique health issues that the LGBTQ+ community faces. In addition to this, future interventions and education programs, such as smoking cessation and alcohol reduction programs, must target the partner as well as the pregnant women to be effective. Partners can have a profound impact on mothers and their babies so it is vital that they also be involved in the antenatal process.

Title: Beginning Steps of a Toolkit to Identify Aon's Global Footprint in the Pharmaceutical

Industry

Name: Jenna Ganth

Preceptors: Emma Bsales, Global Benefits Consultant

Agency: Aon plc. - New York, NY

Purpose: To examine macro trends and to identify Aon's current global footprint in the pharmaceutical and life sciences industries

Significance: Life Science, including biotechnology companies, and pharmaceuticals are fast growing industries, which has specifically been seen during the COVID-19 pandemic. The Global Benefits team is not certain of their penetration in the pharmaceutical and life science industries globally. Because these industries are so large (\$1.25 trillion in global revenue in 2019), it is important that a multinational company like Aon is heavily involved in them (Barton, 2020). It is understood that 76% of the global pharmaceutical revenue is within the top 50 companies in the industry (Statistica, 2020). Aon's involvement in these growing industries, specifically the top 50 global companies, is critical to keep up with market trends. A private database through Aon will be utilized to understand the number of pharmaceutical participants Aon has and the number of plans they have with Aon to fully understand where Aon is at and where Aon's competitors are at within these industries.

Method/Approach: First, the top 50 pharmaceutical companies with the highest revenue globally were analyzed to see if Aon had connections with them. Then, the locations of the connections were exported to Excel to map out visually and to also identify if there were potential opportunities for larger relationships. For example, if Aon has a relationship with a pharmaceutical company in one of their locations in Germany, but the headquarters are in the United States, there is potential for a larger relationship by expanding to headquarters. Lastly, clear visuals were prepared and perfected for presentation to the Global Benefits consultants.

Outcomes/Results: The ultimate outcome to expand client opportunities will not be seen immediately since this requires input and outreach from other teams. From the databases Aon provided, Aon has penetrated 61% of the top 50 pharmaceutical revenue (PHRA Participants, 2020). Around the globe, Aon maintains a major footprint in Canada, Brazil, India, China, and many countries in Europe.

Evaluation/Conclusion: While the outcomes were a very small part of the total project, these results will help consultants across Aon gain insight on where to begin client expansion. This will allow for them to know which companies to start a relationship with or to improve a relationship they already have by broadening it to more locations. The vision is to improve Aon's recognition and beat out market competition, such as Mercer, in market penetration. The limitations would include Aon's rate for a consultant team's work. Aon charges by the hour for their services and they need to remain competitive on their market rates for their services to ensure they are a viable option for a pharmaceutical or life science company to choose for improving their employee benefits program. A measure of success would be an increase in clients serviced by Aon. The list of pharmaceutical/life science companies newly serviced by Aon should consistently be updated.

Title: Center on Nutrition and Disability Cookbook Visuals

Name: Gardner, Mary

Preceptors: Svincicka, Renata

Agency: Family Resource Network

Purpose: To create audible instructions and visual representations of cookbook recipes that can be easily followed, allowing individuals with disabilities to re-create nutritious meals independently.

Significance: In New Jersey, about 23% of the population has some form of disability. Having a disability does not mean you are unhealthy; those with disabilities have the same meaning of living a healthy lifestyle as everyone else. Before the Center on Nutrition and Disability, an extension of The Family Resource Network, there were no known nutritional efforts in the United States that solely focused on the needs of people with disabilities, chronic illnesses, and their caregivers. The Family Resource Network launched the Get FIT Movement to promote nutritional education and physical activities that specifically address the needs of those with disabilities, chronic illnesses, and their caregivers. This project provides an alternate form of learning by using audio and visuals in conjunction with written text to instruct steps of cooking nutritious meals that contribute to a healthy lifestyle.

Method/Approach: The majority of this project was conducted in Microsoft PowerPoint. The responsibilities of this project consisted of creating visuals, taping audio, formatting, and designing the cookbook. Recipes, that had been previously produced, were formatted into large words with readable font in spaced-out boxes. This formatting helps individuals with cognitive disabilities read by making it easier to identify the gaps between words and being able to track the end of the sentences. The design of this project is intended to accommodate individuals with disabilities. A title page and a measuring guide page that included images of common measurement sizes was created. Research was conducted using the CDC to find guidelines for handwashing, food safety, and food storage. The visualizations of the project consisted of cooking every recipe while taking pictures of each step performed using an iPhone camera. These photographs were then transferred from the iPhone to a computer, which were then implemented into the PowerPoint, lining each photograph up with each written step. The PowerPoint was then downloaded as a PDF to reflect a book format. Once the visual aspects of the project were complete, the development of audible aspects began, which included voice recordings that read each recipe of the entire cookbook, step by step. The audio was added to the PDF using Adobe Acrobat.

Outcomes/Results: This project will produce a visual and audible cookbook. This cookbook will contribute to the larger idea of accessibility. Accessibility is the ability to access the functionality of a device, environment, service, etc. People may not realize just how many items can be made accessible to all people with simple changes, such as adding images or audio. A society that is fully accessible to people with disabilities can be created. This cookbook will be useful to individuals with disabilities and help these individuals gain independence.

Evaluation/Conclusion: This project can be evaluated through the reactions of individuals with disabilities and caregivers who will use this cookbook and report back to the Center on Nutrition & Disability. This feedback can validate the accessibility of the project and comment on any limitations. This project should be relooked and modified if functional suggestions are made.

Title: Creation of training program within organization

Name: Judy Gatei

Preceptors: Mr. John Fay, Executive Director of Resilience, Inc.

Agency: Resilience, Inc.

Purpose: To effectively and efficiently organize and facilitate learning and development of every employee within the organization. This will be accomplished through the creation of an online training program.

Significance: Mental health disorders are the most common diseases of childhood in the United States. According to the CDC, 1 in 6 U.S. children aged 2–8 years (17.4%) had a diagnosed mental, behavioral, or developmental disorder. In Addition, Out of the 74.5 million children in the United States, an estimated 17.1 million have or have had a psychiatric disorder. Resilience, Inc allows for students grade K-12 to acquire and apply the knowledge, skills, and attitudes to develop healthy identities, manage emotions and achieve personal and collective goals, feel and show empathy for others, establish and maintain supportive relationships, and make responsible and caring decisions. As the training manager and a member of the HR department, I ensure that each employee is well trained to achieve optimal results and I plan, coordinate, and direct the administrative functions of the organization.

Method/Approach: Resilience Inc mainly uses test scores to measure success within the SEL and SELENA program. This can be done by adding a quiz to both the education component and the training component of the program. Participation in each exercise can be tracked by recording total minutes of use as well as minutes per module. Through this method, Resilience, Inc has discovered that test scores throughout the nation have measurably increased by systematically teaching emotional intelligence, self-control mechanisms, focus techniques, and coping skills. These traits also have been proven to improve collaboration between students and higher rates of long-term information retention. Overall, Social Emotional Learning has been proven to work.

Outcomes/Results: After conducting surveys and collecting test scores from schools. Most students saw at least a 50% improvement in their grades. Most students also saw an increase in their emotional intelligence, self-control mechanisms, focus techniques, and coping skills. Most students saw an increase in their mental health by at least 40%. This significant change was seen after the creation of our online training program. Our training program has now efficiently and effectively trained 100 employees and we have created 3 new programs, that makes us even more effective.

Evaluation/Conclusion: Mental illness is very rampant within U.S children. Currently, there are very few programs in the U.S that tackle mental health in children and young adults. This has led to low test scores, substance abuse, bullying, suicide, school shootings, and mental illness such as depression and anxiety. Creating programs that specifically target mental health and emotional intelligence in students will allow them to process their emotions in a healthy way while significantly improving their academics. There needs to be more programs that focus on mental and emotional health in students.

Title: Environmental Scan and Competitive Analysis for NAACCR Strategic Plan

Name: Anjali Goswami

Preceptors: Direct Supervisor: Ann Marie Hill, Consultant and Associate Professor

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

Purpose: To conduct an environmental scan to lay the foundation for the 2021-2023 strategic plan.

Significance: A cancer registry is an information system designed for the collection, storage, and management of persons with cancer (SEER, 2021). Over the years, there has been an increase in cancer registries in the US, with agencies introducing new programs and technologies to collect cancer data, increasing competition in the registry industry. The North American Association of Central Cancer Registries is an association of central registries across North America and is in the process of creating their strategic plan for 2021-2023. This requires an environmental scan of NAACCR's position in the cancer community and an overview of competing agencies. This project aims to find data about NAACCR's internal and external environment to supplement information for their 2021-2023 strategic plan.

Method/Approach: Step one required creating a database for information about competing cancer registry agencies and assessing NAACCR's visibility on the Internet. Step two was conducting research on the general public's perception on patient confidentiality and cancer surveillance by reviewing research articles from Google Scholar. Step three required finding information about the Biden Administration and their funding plans. Step three involved a comparison analysis of scholarly citations between NCDB (a competing cancer registry) and NAACCR to understand trends in their data usage from 2015-2021 found on Google Scholar and PubMed. Lastly, a SWOT and PEST analysis was conducted.

Outcomes/Results: For step one, the agency database provided an overview of 35 key NAACCR stakeholders, which included basic information about each organization such as their mission, vision, goals, major programs, budgets and funding sources. In step two, 8 articles about concerns surrounding patient confidentiality were found and compiled into a report that highlight key concerns of patients and the public regarding privacy and confidentiality. In step three, 14 total articles about the Biden administration and its funding plans were compiled into a report, highlighting relevant financial and political information. For step 4, 400 total articles were found, 200 for each agency, NAACCR and NCDB, ranging from 2015-2021. From 2015 to 2019, NAACCR had wide coverage in citations in recent publications, but in 2019, the numbers dropped significantly. NCDB citations gradually increased from 2015-2019 and remained consistent throughout 2020 and into 2021. Based on the findings of the environmental scan, a SWOT and PEST analysis was completed. All findings were then presented to the NAACCR Board for their consideration.

Evaluation/Conclusion: The information collected for these projects will be contributed to a summary report which describes NAACCR's current position among their competitors and in the larger cancer community. Additionally, it will help lay the foundation for the 2021-2023 strategic plan.

Title: Integrating Youth-Based Video Content for Increased Social Media Engagement

Name: Emily Grzesiowski

Preceptors: Direct Supervisor: Alex Boscolo, Communications & Development Coordinator

Agency: Day One New York

Purpose: To extend reach of healthy relationship and other domestic violence-related educational content to youths between the ages of 16-25 via social media engagement and campaign development.

Significance: Intimate Partner Violence affects some of the most vulnerable: according to the CDC, 26% of women and 15% of men have experienced some form of dating violence before the age of 18¹. Day One New York partners with youth to provide resources such as legal services, counseling, and education to prevent and mitigate dating violence for youths aged 16-25. Currently, the average age of users on Day One social media does not reflect its target population; the largest population of users on its Instagram profile, ages 25-34, make up 44% of the site's visitation, while users ages 25 or younger make up 15%. These numbers indicate that even though average donor-age user engagement is high, engagement with Day One's target service population is disproportionately low. This overall diminishes a chance for Day One to connect youth to crucial resources, endorsing healthy relationships and mitigating unhealthy ones.

Method/Approach: This social media campaign focuses on incorporating more youth-based content to the Day One Instagram account. One conducted qualitative research via the Nonprofit Marketing Summit and interviews with Day One's Relationship Abuse Prevention Program staff. This gave insight as to how users are changing what content they look at, including increasing video consumption as oppose to photos, and that most young people are engaging with more informal, youth-made content on Tik Tok rather than Instagram. This project created a Day One Tik Tok account to find healthy relationship content made by young people. The project then re-posts these videos to Day One's Instagram account. One also supplemented this with youth-targeted content creation, including comprehensive, aesthetically-appealing 'gallery' posts that clearly relay Day One/other organizations' resources and information.

Outcomes/Results: The outcome data is measured by the change in Instagram audience via Later.com analytics and Instagram Insights. Target audience distribution, ages 13-24, increased only from 15% to 16%. In comparison, users ages 25-34 increased from 44% to 47%. However, overall content engagement grew tremendously. 4 out of 9 posts from this campaign ranked in the top 7 posts in the past 6 months. Content interactions, including Likes, Comments, Saves, and Shares, grew 147.6% in a 30-day period.

Evaluation/Conclusion: Though Day One did not meet its goal of shifting its target population, it did overall succeed in user engagement on this campaign. In the future, Day One staff or leaders will be able to replicate this process and further re-post youth-based video content from TikTok. Limitations to this process include finding relevant, appropriate, and youth-created content to share. It requires an adult to resonate with young people's vernacular, which may sometimes include dark humor that may not be appropriate to represent an organization like Day One. The organization discusses topics of sexual assault, trauma, etc. but sometimes youth-made content made around these topics may be triggering or harmful.

Title: MedCycle Inc. Performance Assessment

Name: Stephanie Guarino

Preceptors: Direct Supervisor: Christopher Polgar, Chief

Agency: MedCycle Inc.

Purpose: To enhance the social marketing by remodeling the social media for instance the Instagram, Facebook, Twitter, and Google Calendar, to boost awareness of the services offered by MedCycle and increase revenue.

Significance: Since 2015 when Medcycle Inc. was created, the only established social media platform was Facebook. By creating social media platforms and exposing the services offered, the company will gain interest, boost engagement, and profitability. While creating an Instagram, Twitter, Google Calendar, and Facebook, we were able to see the growing followers by seeing how many insights and exposure a post was getting. "You can see how many people are reacting to, commenting on and sharing your Page posts in Page Insights" (Facebook). A weekly insight analysis was done to gain knowledge on what consumers wanted to see through insights. "Notably, the gap between more access to useful data and the ability to develop practicable insights has doubled, from 14% in 2012 to 28% in 2017" (Kiron, Ransbothum,2018). Using these insights offers growth opportunities and networking expansion.

Method/Approach: To begin transforming MedCycle's social media presence, an Instagram and Twitter were created. Each page was given a strong and easily accessible name, bio with description of our services, the link to the webpage was added in each header as well. The profile picture was the company's EMS signature patch found on all merchandise and uniforms. Each weekday, the team of social media interns posted on the Facebook page at least twice a day and then gradually moved to the other platforms so there was constant activity. Using the Google calendar that is produced for each month, the team plans in advance what each post will consist of. Using the system of Medical Mondays, Tuesdays focusing on a launch campaign, Wednesday on a product, Thankful Thursdays, and Friday alternates between sponsorships and upcoming events. By using this system, each week we are prepping for the next to ensure there is always something posted and it is never a repeat.

Outcomes/Results: The results of the social media presence of MedCycle can be found in the analytics found on all platforms. We were able to weekly check on whether our followers were growing, how many views a post gets, how many views the page gets, and what our viewers were most engaged with. After analyzing each week, the team would meet on Mondays to evaluate what we should change to increase views and give potential new clients what they are looking for. The newly implemented Instagram page highlights showed a +833.3% increase in content interactions, +151.1% increase in profile visits, and +150.9% increase in impressions.

Evaluation/Conclusion: After the initial evaluation of the company only having a Facebook with little interaction and updates every few months, the creation of other platforms was essential. Without social media influence, especially during a pandemic, there would be little to no way of sharing who or what services the company offers. In conclusion, the transformation of social media got MedCycle's name out to future clients, grew the company's exposure, and helped to produce a new version of MedCycle.

Title: COVID-19 vaccine hesitancy in the Black/African American and Latinx communities.

Name: Maria A. Guevara Carpio

Preceptors: Preceptors: Marsha Gordon - Executive Director, Myneka Macenat - Research Coordinator

Agency: New Jersey Alliance for Clinical and Translational Science (NJ ACTS)

Rutgers Robert Wood Johnson Medical School, Department of Family Medicine and

Community Health

Purpose: To support the *NJ HEROES TOO* research project by coding qualitative data on vaccine hesitancy in Black/African American and Latinx communities.

Significance: COVID-19 has affected around 28,580,198 people in the United States (CDC, 2020). More than 700,000 labs have confirmed COVID-19 cases in New Jersey alone and as of 12/2020 1 in 500 people have died from COVID-19 since the pandemic started. The vaccine is one of the most helpful methods to prevent the spread of COVID-19 and its negative consequences. However, the rates of vaccination for Black/African Americans and Hispanics are low. Out of the approximate 20% of the NJ population that has been vaccinated, only 4% of Blacks/African Americans and 6% of Hispanics have gotten vaccinated. This evidence indicates a public health disparity among minorities. Analyzing focus group discussions with members from these communities helps to clarify the reasons for low rates of vaccination and how vaccine hesitancy plays a role.

Method/Approach: The NJ HEROES TOO Project conducted 14 focus groups and 7 individual interviews in Spanish and English via Zoom with Latinx and Black/African American communities in 4 counties in NJ: Essex, Middlesex, Union and Passaic, between November 2020 and February 2021. All text relating to perceptions of COVID-19 vaccines were extracted from the transcripts and all quotes pertaining to reasons for vaccine hesitancy were coded. This coded text was then organized into themes that reflected the types of information participants desired.

Outcomes/Results: The results of this analysis indicated that of the sample size (n=111), 78.4 % female and 21.6% male, t common reasons for vaccine hesitancy included: concern about the vaccines' effectiveness; short-term and long-term effects; the fast development of the vaccine; and general distrust of institutions and western medicine, which some explained was rooted in historical trauma and racism, from events such as the Tuskegee Experiment. Based on these themes, a list of 8 questions emerged that summarized, in a practical way, the kind of information these communities desire in order to feel comfortable receiving the COVID-19 vaccine.

Evaluation/Conclusion: Although wounds from historical trauma cannot be healed rapidly, there are different ways to begin rebuilding trust with Black/African American and Latinx communities. One of them, as mentioned by many participants, is to provide more accessible and readable information about the vaccine, its ingredients, development and effects. Also, it is necessary to spread these informational resources through outlets that people consume, such as social media. Further, it is essential to utilize community agents and organizations to serve as the bridge between medicine and communities of color.

Title: Referral System for Newly Diagnosed People with Epilepsy

Name: Michelle Gulotta

Preceptors: Andrea Racioppi, Vice President

Agency: Family Resource Network: Epilepsy Services of New Jersey

Purpose: To create an organized system for referrals from a pediatric neurologist to Epilepsy Services of New Jersey (ESNJ) to connect newly diagnosed people with epilepsy and their families with non-medical services.

Significance: In the United States there are 3.4 Million people living with epilepsy (CDC), and each year 150,000 more are diagnosed (NINDS). Newly diagnosed people with epilepsy face challenges that are not addressed by the diagnosing healthcare provider, which can impact quality of life and ability to reach seizure remission. In a focus group based study, people with epilepsy expressed that physicians should take more of a role in directing newly diagnosed patients to available resources and social services as they are often the main source of information for patients (Chung et al., 2012). ESNJ provides assistance to those with epilepsy and their families in navigating systems like healthcare and school resources, and educational material to keep people with epilepsy and those around them informed, along with the opportunity to join a supportive community. The referral system between ESNJ and Dr. Khrizman will streamline the connection of newly diagnosed patients to available resources that will help them navigate life with epilepsy, control seizures, and improve quality of life.

Method/Approach: Research was conducted to determine which online scheduling platform would be most effective to schedule appointments with families of patients with epilepsy to inform them of services available at ESNJ. Introductory emails were composed in English and Spanish to be sent out to families of patients of Dr. Khrizman which provide a summary of ESNJ's services, along with a link and QR code that leads to ESNJ's page on the scheduling application, Arrangr, so that families can make an appointment with an ESNJ representative. Dr. Khrizman created a family satisfaction survey to be sent out after the meeting that was translated into Spanish.

Outcomes/Results: The referral system between Dr. Khrizman and ESNJ was implemented on March 26th, 2021. This system will allow patients to schedule an appointment with an ESNJ representative to be informed of services and resources available through the organization. As of April 12th, 2021 there have not been any appointments scheduled however Dr. Khrizman will continue to promote the system to families of her patients.

Evaluation/Conclusion: A family satisfaction survey will be sent via email after the meeting with the ESNJ representative. This survey will serve to receive feedback and improve the system based on five closed ended questions about user friendliness, preferences for the format of the meeting when in-person activities can resume, usefulness of the meeting topics, and if they would recommend it to other families who have children with epilepsy. The survey will also include two open ended questions asking which topics discussed were most useful and suggestions for topics for future meetings.

Title: Developing Care Packages for Seasonal Extreme Weather Conditions

Name: Tiffany Guo

Preceptors: Direct Supervisor: Kelsey Lynch, Co-Founder of Archangel Raphael's Mission

Agency: Archangel Raphael's Mission (ARM)

Purpose: To assess health outcomes of extreme weather conditions on the homeless population's health status and develop a care package specialized in improving such health outcomes.

Significance: Hyperthermia and hypothermia are extreme medical conditions that affect an individual's body temperature. These conditions include extreme rise or drop in body temperature that can be due to extreme weather conditions. Without access to proper shelter and necessities, it is easy for an individual to fall victim to such medical conditions. Between 2005 and 2014, the homeless population of New York City accounted for 18% of the deaths attributed to hypothermia and 24% of hospitalizations (Zhang, et. al., 2019). These reports draw a severe health concern for the homeless population, and evidence-based prevention strategies are needed to alleviate the devastating statistics.

Method/Approach: A literature search was performed using PubMed Central to find articles that report on the current state and health outcomes of extreme weather conditions on the homeless population. The search used the following terms: "extreme weather conditions," "homelessness," "hypothermia," and "hyperthermia" and was limited to English language, humans, and articles from 2000 to 2021. These articles were then used in conjunction with the data collected by ARM to develop a specialized care package for extreme weather conditions.

Outcomes/Results: Three scholarly articles were examined for this analysis: one focused on implied prevention strategies and two reported on data involving the homeless and extreme weather conditions. Outcomes report the importance of a seasonal cold weather response strategy to reduce possible negative health outcomes. The data collected from each service yielded an increased request for items during hotter weather conditions and a decreased request during colder weather conditions. A total of 15,715 goods were given away during the past year, and the most requested items were: meals, care packs (toothbrush, soap, etc.), and socks. Furthermore, pillows and blankets were frequently requested during colder weather conditions. Care packages and protocols for extreme weather conditions could significantly improve health outcomes. These protocols include providing care packages prior to the start of winter that contain socks, an emergency food kit, small care pack, emergency blanket, outreach programs, and resources that provide them the location of the nearest shelter and emergency health services.

Evaluation/Conclusion: ARM can play a role in preventing deaths and reducing poor health outcomes for extreme weather conditions through providing necessary care packages. The proposed care package should address problems that arise from extreme weather conditions. Extreme weather condition care packages are imperative to help individuals without proper shelter before their health is negatively affected and ARM can assist in the prevention of hypothermia and hyperthermia by providing the aforementioned care packages. To determine the efficacy of the proposed care package, further cost-effective analysis would be needed.

Title: Maternal and Child Health

Name: Catrina Gutescu

Preceptors: Maritza Raimundi-Petroski

Agency: The Children's Home Society of New Jersey

Purpose: To effectively promote health equity and language access for the Maternal and Child Health program at The Children's Home Society of New Jersey (CHSofNJ).

Significance: About 700 women die each year in the United States as a result of pregnancy or delivery complications (CDC, 2019). In 2018, Hispanic women in New Jersey had a rate of maternal mortality of 24.6 per 100,000 live births – compared to 12.2 per 100,000 live births for Hispanic women in the country, according to the United Health Foundation. The lack of maternal health contributes to the high maternal mortality rate in the U.S., which is why CHSofNJ works to provide reliable information, programs, and support services for women and their families (Stecker, 2021). There are clearly gaps in maternal health for different races, however, CHSofNJ works to provide the education and services for both maternal and child healthcare. In NJ, there are over half a million Hispanic households. By translating all the important resources provided by CHSofNJ, Hispanic families across NJ can have access to these health care programs and get more education, hopefully resulting in smaller gaps in maternal and child health for the Hispanic population.

Method/Approach: In order to address and promote health equity and language access for the Maternal and Child Health program at CHSofNJ, program materials of maternal services, such as, AMAR Community-Based Doula Program, CUNA Prenatal Health Education and Support Group Program, Body and Soul Prenatal Health Education and Support Program, Early Head Start Program, Birth Parenting Counseling, and the Women, Infant and Children Program were translated to Spanish with great attention to detail. All of these services provided personnel who speak Spanish. Doing this provided the Hispanic population the opportunity to receive and understand the care they need as expecting mothers, mothers, and women, in general, need.

Outcomes/Results: From November 2019 to date, CHSofNJ has operated the AMAR doula program successfully supporting 43 births through the end of February 2021; and supporting 56 women in total. From November 2019 to February 2021, throughout the COVID-19 pandemic: 97% (42/43) babies born full-term (more than 37 weeks gestation), 95% (41/43) babies born with a healthy birth weight (over 5lbs, 8oz), 93% (40/43) babies not in NICU, 90% (39/43) mothers initiated breastfeeding in the hospital, 83% (36/43) mothers initiated skin-to-skin contact with their babies, 81% (35/43) mothers did not use an epidural, 11% (7/43) NTSV Cesarean-section rate (non-breech, first-time mothers), compared to 26% for NJ statewide, according to the NJ Hospital Association. Clearly, the work of CHSof NJ can combat these disparities through the Maternal and Child Health Program.

Evaluation/Conclusion: The programs provided by CHSofNJ contribute to combating the gaps and disparities in maternal and child health. CHSofNJ provides the Hispanic population the opportunity to receive and understand the care they need as expecting mothers, mothers, and women, in general, need. The Children's Home Society of New Jersey conducts evaluations on a regular basis to assess knowledge gained and likelihood of participants changing their behaviors.

Title: Sending Data Requests to Federal Agencies and Small Businesses for a

Congressionally-Mandated Audit

Name: Kermina Hanna

Preceptors: Robert Marek, Assistant Director - Science, Technology Assessment, & Analytics Team

Agency: US Government Accountability Office (GAO)

Purpose: To send interview questions to more than two dozen federal agencies and about one hundred small businesses to arrive at an answer for an inquiry posed by Congress in federal legislation.

Significance: Congress spends billions of dollars every year on many different programs and new initiatives. However, Congressional members and their staffers don't have the time to track the efficacy and efficiency of federal spending within each program. In order to understand how well, if at all, this money is used, Congress asks GAO to study various parts of a program and report back. This internship project contributed to Congress's understanding of the efficacy and efficiency of the federal budget.

Method/Approach: In response to a law passed by the 116th Congress in its second legislative session, Congress tasked GAO with auditing a federally funded research and development program for small businesses and publishing a report in Fiscal Year 2021. To do this, the team assigned to this audit began by interviewing several federal agencies to collect qualitative and quantitative data related to the program. However, due to time constraints, the interview process occurred mainly through email. To gather more perspectives on the topic, our team also collected answers to interview questions through email from about 100 relevant small businesses. A pilot focus group with about 8 small businesses was conducted to understand what kinds of responses we would likely get from the larger group. To create this group, the team used a list of small businesses that GAO contacted during previous audits. The team then cross-referenced this list with a second list of small businesses that negatively interacted with a federal agency through this program based on data that we collected from federal agencies in a previous audit. An Excel merge function resulted in 8 matches of these small businesses in both lists.

Outcomes/Results: The auditing team sent a Word document with about 25 interview questions and a data collection request in an Excel sheet containing 17 fields asking about the program to 29 federal agencies from 02/18/2021 to 02/24/2021. Contacts for 8 organizations were emailed as part of the pilot focus group from 04/08/2021 to 04/12/2021.

Evaluation/Conclusion: By the end of April, the team will analyze both the qualitative data we receive from the interview answers and the quantitative data we receive in the Excel sheets. We will also analyze the qualitative data from the interview answers we receive from each of the private organizations. Then, our team will try to decipher the story that the data is telling and write a public report. To ensure the objectivity and fact-based nature of the report, several internal stakeholders will review the report to Congress. The team will also likely make recommendations to improve the program. Additionally, the audited agencies will read the report and send GAO their responses in writing, which do not change the language of the report, but are only added as an appendix to the published report.

Title: New Jersey State and Local Disease Control

Name: Carla Haro

Preceptors: Larissa Neilan, Supervisor

Agency: Staffing Etc. - Hudson County Department of Health

Purpose: To conduct research on infectious disease control and the relationship between state and local departments of health in New Jersey, for testing and tracing mitigation strategies.

Significance: With new COVID strains emerging and making their way into New Jersey, understanding how the New Jersey Departments of Health work together in efforts to properly trace and monitor the spread is essential to the health of our communities. Contact tracing also involves providing cases with guidelines, resources for food/medicine/shelter, and any additional social support that may be identified. A NACCHO survey indicated that New Jersey ranks lowest in money spent per person, less than \$30 per person, while states like New York and Maryland spend more than \$70 per person (Balcerzak, et al. 2020). Not having the appropriate funding and resources makes it difficult to provide the essential services that serve as a foundation for the public health infrastructure with a goal to, "ensure that Federal, State, Tribal, territorial, and local health agencies have the necessary infrastructure to effectively provide essential public health service" (Healthy People 2020).

Method/Approach: This project was conducted through online research of different areas such as the Public Health Infrastructure, the structure of the NJ Department of Health, contact tracing, and the effectiveness of COVID-19 contact tracing. Research steps taken first involved and required gathering information on Public Health Infrastructure works in order to understand how the NJDOH and Local Departments of Health (LHD) work together. Effectiveness of COVID-19 contact tracing was analyzed through data provided by the covid.nj.gov website.

Outcomes/Results: New Jersey has a decentralized health department meaning that local health departments are carried out by local government employees, Hudson County currently has 12 LHDs. New Jersey currently has 93 local health agencies and works with New Jersey Local Information Network and Communications System and The New Jersey Association of County and City Health Officials to carry out the 10 Essential Public Health Services listed by the Public Health Infrastructure. New Jersey currently ranks 31st in the nation for Public Health funding and ranks last for grant funding from the CDC (Campbell, et al. 2020). The CDRSS serves as a state and nationwide surveillance that instantaneously tracks and documents reports of communicable diseases.

Evaluation/Conclusion: The NJDOH has a decentralized system but by not having a uniform structure with protocols/procedures it puts an extreme amount of strain on the few employees that each health department has and could potentially impede statewide effectiveness. COVID-19 contact tracing has been effective in getting in contact with cases and conducting interviews, but an area of struggle continues to be obtaining information for contacts. This makes it very difficult to effectively monitor, track and prevent the spread of COVID-19 throughout New Jersey and within our counties. Additionally, while contact tracing is not a new practice by any means, most have not encountered as large a scale public health initiative previously, which makes public trust and participation an additional barrier for case investigation and contact tracing.

Title: Data Management and Networking Members for Community Networking Association

Name: Christina Heintz

Preceptors: Direct Supervisor: Ines Serna, Co-Chair

Project Supervisor: Christian Mercado, Co-Chair

Agency: Community Networking Association- Bergen County Chapter

Purpose: To manage and create a membership database and network new organizations and members within CNA while using social media promotion.

Significance: The COVID-19 pandemic has shocked the already fragmented health care system within our country. According to the New Jersey Department of Labor and Workforce, over 2 million people in the state have filed for unemployment since April 2020, and as a result, people are also losing their employer-sponsored health insurance (2020). This makes networking and access to care, which is a vital goal of Healthy People 2030 within public health, increasingly challenging for any person or organization (ODPHP). The Community Networking Association aims to mend some bridges in care and other population needs through networking resources for non-profits and other public health organizations. Connecting such individuals, businesses, agencies, and organizations can pave the way for creating more joint partnerships and a continuum of care for patients and community members. Assessing the needs and resource requirements of communities is an important step in choosing effective programs and services.

Method/Approach: Monthly CNA meetings were promoted through e-mailing, personally reaching out to organizations, Google chat, the chapter's Facebook page, attending other chapter meetings in order to directly invite individuals, and the newest installment of spotlight videos that promote a public health awareness topic each month. Attendance was taken via a Google Form at monthly meetings of individuals, organizations, and their contact information which was used to develop a comprehensive list of participating members. A database of existing and new individuals/organizations was developed to keep track of members over the past two years. The attendance forms from 2019, 2020, and 2021 were evaluated and organized into an Excel spreadsheet of this information.

Outcomes/Results: A completed spreadsheet displays an organized timestamp of member login, contact information, the individual member's name, and a description of their organization. The spreadsheets are separated by year and also include information as to whether the member is new to the organization and whether or not the individual is a part of the Google chat. The spreadsheet included over 300 members' information per year and a newly created survey for members to complete in order for self-evaluation of the chapter. This new database format will be used for the chapter going forward. All duplications have been removed in order to have a unique list of individuals and organizations. This process helped analyze the types of organizations the chapter attracted the most and which can connect together.

Evaluation/Conclusion: In the next two years, the spreadsheet will help evaluate how membership in the chapter has increased through promotion by viewing the number of new organizations. Satisfaction surveys of members will be analyzed and the continuation of the database format to be built upon for future meetings will allow for its success.

Title: Freehold Bikeability and Walkability Assessment

Name: Kevin Hernandez

Preceptors: Linda Brown, Executive Director

Agency: Neighborhood Connections to Health *NCTH* (Freehold, NJ)

Purpose: To evaluate the number of biking accidents and pedestrian accidents in NJ, in order to raise an awareness campaign on Bike and Walking safety throughout the city of Freehold.

Significance: New Jersey has a pedestrian fatality rate of 1.61 per 100,000 people, the 15th highest among all states. Approximately 141 pedestrians statewide are killed each year in crashes with motor vehicles, another 270 pedestrians are severely injured and 6,000 are struck by motor vehicles (*New Jersey Pedestrian safety Action Plan.* 2014, June). NCTH has actively contributed to Bike/Walk safety of Freehold Borough, therefore by providing the community with the information on accidents in NJ, NCTH can further improve their Biking and Walking safety regulations and projects in the future.

Method/Approach: Neighborhood Connections to Health Bikeability/Walkability Survey, NJ Pedestrian Safety Action Plan (NJPSAP), the Park Ave Elementary School (ES) crash map of Freehold, and the 2016 New Jersey Health Initiatives analysis of Freehold borough were analyzed to identify information bikeability/walkability safety in the city of Freehold. The survey was distributed to 11 crossing guards in Freehold Borough Crossing Guards completed the survey, including details on how many times they have seen accidents while on duty, how many students/parents cross their respective posts. How often motor vehicle operators responded to the crossing guards movements or signals on a scale of 1-10 with 1 being non-receptive and 10 being fully compliant. The Park Ave Elementary School (ES) Crash Map of Freehold was also reviewed in order to observe the number of crashes in that general area from 2014-2018.

Outcomes/Results: During the typical morning commute to the Park Ave ES, guards reported that a range of 10-800 people cross their posts a range of 10-950 in the afternoon. For context, the Freehold Borough is a zero busing district therefore many citizens, walk, bike or drive. Of the 11 guards, six reported they had witnessed car collisions usually bumper to bumper. The crossing guards also observed speeding vehicles, vehicles not coming to a full stop at a stop sign, and no clear line of sight for drivers to see oncoming pedestrians or emergency vehicles due to hedges needing to be lowered. On the scale of 1 to 10, the responsiveness of drivers to their movements/signals was an average score of 8.54. The Park Ave ES Crash Map detailed that 575 crashes occurred within six blocks of the school, six bike and 10 pedestrian crashes, 15 injuries and zero fatalities.

Evaluation/Conclusion: Findings from the responses suggests, more guards are needed to direct traffic in certain hotspot areas where accidents are more likely to occur. Community programs are needed to educate students, parents, and the public about safe walking and biking. Implementing after-school programs involving older students (Middle/High School) in which they teach younger students how to bike safely and walk with senior citizens, prevent less accidents and help with community service hours if needed. Citizens of Freehold can organize and talk to the municipality about infrastructure changes in order to improve biking/walking security bringing attention to broken sidewalks, missing sidewalks, bike lanes, etc. This would help restructure the safety of citizens who bike and walk in the community.

Title: COVID-19 support for New Jersey residents

Name: Eseosa Sylvia Igiehon

Preceptors: Alicia Gambino, Director of Educational Services.

Agency: New Jersey Poison Control Center/ Coronavirus Hotline

Purpose: To provide adequate assistance and educational support to New Jersey residents on COVID-19 related issues.

Significance: As of March 4 2021, COVID-19 has caused at least 515,277 deaths in the United States and 23,383 deaths in New jersey. The New Jersey Coronavirus Hotline provides assistance on testing, COVID-19 medical advice, preventions, and vaccination registration to all New Jersey residents and workers in the state. With assistance from the New Jersey Coronavirus Hotline, there have been about 745,000 people fully vaccinated in New Jersey today. This project will focus on the COVID-19 support provided by the hotline to New Jersey residents according to counties by identifying the counties in New Jersey in need of extra assistance through their call volumes.

Method/Approach: Calls are received 24 hours a day, 7days a week at the New Jersey Coronavirus Hotline from different counties in New Jersey. These calls include various inquiries on COVID-19 related issues such as testing centers, vaccine locations, prevention measures, travel restrictions and precautions, vaccine side effects, and vaccine registration and appointments. Every call received is recorded in the system with names, county and reason for calling. The calls are compiled and arranged by all 21 counties to identify those that requested the most support.

Outcome/Result: The New Jersey Coronavirus Hotline has received at least 100,000 plus calls since the hotline was developed. Calls from various counties differ in rate with some having higher calling rates than others, with 10% Bergen county, 9.7% Essex county, 9.7% Middlesex county, 8.98% Hudson county, 7.6% Monmouth county, 7.5% Ocean county, 7.3% Passaic county, 6.8% Union county, 5.4% Camden county, 4.8% Morris county, 4.3% Burlington county, 3.6% Mercer county, 2.9% Gloucester county, 2.8% Atlantic county, 2.7% Somerset county, 1.6% Cumberland county, 1.27% Sussex county, 0.97% Hunterdon county, 0.96% Warren county, 0.59% Salem county.

Evaluation/Conclusion: This result shows the counties in need of support. The higher the call volume, the more help needed in that county. Currently 40% of the New Jersey adult population are not yet registered to receive the COVID-19 vaccine. With the expanded vaccine eligibility, this number is set to decrease and registered NJ residences are set to increase as well as the call volume. With the recent issue with the Johnson and Johnson vaccine, the Hotline is likely to receive an influx of callers from every county in New Jersey.

Title: An Evaluation of "The Gray Area" within the Self-Directed Care (SDC) Program

Name: Soondus Iqbal

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

Agency: Columbia University, Psychiatry Department

Purpose: To explore "gray areas" of the Self-Directed Care (SDC) program and identify practices that help the program maintain flexibility and remain true to the mission of providing a unique client-centered approach while increasing the potential for program expansion.

Significance: According to the New York State Department of Health, one in five New Yorkers experience symptoms of a mental health disorder. Many do not have the financial means to treat these issues, ultimately impeding their recovery and quality of life. By providing individuals with the funds and guidance to create their own wellness goals, the SDC program emphasizes client autonomy and person-centered care. Within the two sites currently implementing SDC, participants gain access to funds that allow them to purchase goods (e.g. furniture, art supplies) and/or services (e.g. gym memberships, dental care) that would not otherwise be covered by Medicaid to support them with their wellness and recovery goals.

Method/Approach: Semi-structured qualitative interviews were conducted with Self-Directed Care stakeholders (N=29), including SDC program clients, staff, leadership, and representatives from state agencies (e.g., Office of Mental Health). Interviews were conducted over phone or via zoom, recorded, and transcribed. A codebook was developed consisting of key topics emerging from interviews and transcripts were systematically coded to group quotes relating to specific themes and concepts. Interview excerpts reflecting codes relevant to this evaluation were analyzed, including codes such as "the gray area," "sustainability/scale-up", and "purchase process/spending rules."

Outcomes/Results: Stakeholders described that the program was developed with few rules and minimal guidance to allow maximum opportunity for clients to purchase goods and services that they perceived were essential to their wellness goals. Stakeholders described a highly individualized, flexible, and complex decision-making process involved in the State's approving purchase requests initiated by clients, wherein factors such as the individual's goal, prior purchase history, budget status, goal progress, and other individual circumstances were considered. Stakeholders noted that the program's flexibility was key to supporting client autonomy and self-direction; however there were also concerns regarding the program's ability to effectively operate and maintain some consistency across approvals were it to expand on a larger scale, given the paucity of standardized guidelines. Suggestions to address this issue included expediting or automating certain routine and recurring purchases such as cell phone bills, reviewing common purchases and conducting market research to place cost parameters on certain purchases, developing standards for what criteria to consider when making approvals, and providing further training to those reviewing and approving purchases.

Evaluation/Conclusion: These findings highlight key areas and aspects of the SDC program that need to be addressed when considering expansion in order to continue to promote self-directed and autonomous decisions, while also, increasing program efficiency and consistency. Limitations include the complexity of the approval process, as it is difficult to standardize without decreasing individualization. Overall, the Self-Directed program has received overwhelming support and positive feedback from its stakeholders.

Title: Home Health Aide Annual Education Training

Name: Amir Jamal

Preceptors: Javier Mendoza, Director

Agency: BAYADA Home Health Care - Union, NJ

Purpose: To facilitate and track certified home health aides (CHHA's) annual education training through online resources.

Significance: The New Jersey Board of Nursing requires that all CHHA's complete training and education every year to retain their licensure (New Jersey Board of Nursing, 2019). Through continued educational modules, clinicians can stay up-to-date on new policies and procedures to deliver the highest quality care (Cobb, 2004). BAYADA Home Health Care has adhered to this policy while maintaining COVID-19 safety guidelines by creating online annual education resources that keep CHHA's up to date on the latest policies regarding infection prevention, honesty and confidentiality, and safe medical device usage. The BAYADA office servicing Union County in New Jersey has over one hundred home health aides that must complete annual education.

Method/Approach: CHHA's were scheduled in a two month timeframe to enter the office for their annual education training. The names and phone numbers of 93 HHA's were exported to an excel spreadsheet for scheduling and reporting purposes. CHHA's read and completed competencies in modules based on current policy surrounding use of medical devices, honesty and confidentiality, hygiene, and infection prevention. After completing the four learning modules, the date and time that the HHA completed the exam was recorded, which was then reported to BAYADA's central office to be uploaded to a Tableau spreadsheet for all BAYADA field offices.

Outcomes/Results: Of the 93 Home Health Aides that remained to complete their training, only 86 (93%) have completed it thus far and signed up for their BAYADA Employee Portal. 5 (5%) of the Home Health Aides required assistance from the Information Systems (IS) Department in activating their accounts, 14 (15%) of CHHA's needed assistance accessing or creating a new email. Approximately 89% of Home Health Aides speak Spanish as their only language or as their preferred language and learning module materials were only presented in English which made the training process more time consuming.

Evaluation/Conclusion: One-hundred and nine HHAs have completed their annual education giving the office a 92% compliance rate for our CHHA's making the Union office the highest in our division for compliance. Having electronic modules will increase access and efficiency for CHHA's that have a high technology literacy. By helping CHHA's with electronic learning modules, their electronic literacy will increase. I would advise that annual education modules should be translated to Spanish as well as English for CHHAs whose primary language is Spanish. Ongoing scheduling to reach 100% compliance will continue.

Title: The Importance of Change Management in Healthcare Organizations

Name: Kedar Jani

Preceptors: Anum Asghar

Agency: Patel Eye Associates

Purpose: To optimize the new EMR system in order to increase the efficiency of patient flow to provide better quality care for patients with Glaucoma

Significance: Glaucoma is a severe eye disease that is the number leading cause of blindness in the United States. Glaucoma causes increased eye pressure which leads to gradual vision loss. Roughly three million people in the United States have Glaucoma, and half of them are unaware of it (glaucoma.org, 2017). The older you get, the higher the chance of Glaucoma. There are currently no medication or treatment to reverse the effects of glaucoma, however, there are ways to slow it down and potentially lower the side effects. To do this, patients must be screened using several testing machines to check side vision loss and eye pressure check. Patel Eye Associates is the leading facility in Central Jersey with the tools equipped to screen for Glaucoma. The aim of this project is to optimize the new EMR system implemented in the facility in order to prioritize patient care.

Method/Approach: In order to fully optimize the new EMR system, extensive training was done with the staff members. There were four fully dedicated work days to go over the training regiment with the staff members, and each staff member had to practice with test patients. After training, the staff was introduced to real time flow with patients gradually, increasing patients every week. Patients were asked to leave a review about their experience and treatment. Positive reinforcements were used to motivate workers.

Outcomes/Results: In the starting weeks of the new system, staff members were having trouble transitioning to the new EMR system. The average time for screening a patient went from seven minutes to around 20 minutes per patient. This was expected, since the new system was much more complicated and the staff members were resistant to learning. Additionally, medical records from the old patients had not transferred over to the new system. The first two weeks saw a wave of negative reviews for the additional time that patients had to be in the rooms for. Seventy eight percent of all the reviews in the first month were negative. After the first month, the staff members grew more optimistic about the new EMR. The screening time for patients went back down from 20 minutes average to all time lows of six minutes. Additionally, the reviews after two months went from 78% negative to only 33% negative. These negative results may be due to other factors not related to the new system.

Evaluation/Conclusion: Overall, the staff members appreciated the new EMR system as time went by. The new system helped the office go paperless, and integrate testing, screening, records, and billing all under one system. The staff members were originally resistant to learning the new system, but after a month of constant practice and positive reinforcements, the staff members grew used to it. The reviews showcase that the majority of patients are happy with their medical treatment, which means that the organization was successfully able to integrate the new system in order to prioritize patients.

Title: Nutritional and Health Aspects of Food in South Asian Immigrants

Name: Fatima Javed

Preceptors: Katherine Schaible, Program Director

Agency: Crossroads4Hope (Formally known as Cancer Support Community)- Bedminster, NJ

Purpose: To conduct a literature review to study the association between acculturation and dietary pattern of South Asian immigrants and analyze its effects on health.

Significance: South Asian immigrants try to adopt western dietary habits, resulting in health effects such as obesity, cardiovascular diseases, type 2 diabetes, and cancer. National studies report that approximately 25% of Asian Indians experience chronic health conditions (Cao, Ahmed, and Islam, p. 11). The higher risk of health problems is because of the quality and quantity of carbohydrates, types of fats, and protein (Prakash et al., pg. 17-24). Studies show a lower rate of breast, cervical, and colorectal cancer screening among the South Asian population in the U.S. The individual barriers to screening encounters by South Asian immigrants include lack of knowledge, local access, language barriers, and lack of physician recommendation (Crawford, Ahmad, Beaton, and Bierman). This evidence suggests the importance of dietary intake and cancer screening behaviors. The evidence-based intervention will address how to improve dietary intake and resources for cancer screening.

Method/Approach: Cervical cancer is also widespread among South Asian women. Research shows that "58% of women had ever received a clinical breast exam, 59% of women had ever received a pap smear, and 78% of women over the age of 40 had ever had a mammogram" (Ahmed, Agarwal, et al.). After completing research on the South Asian Community's dietary pattern, finding dietitians/initiatives are the main concerns that can partner with Crossroads4Hope and help the South Asian Community in their nutritional habits and cancer screening behaviors.

Outcomes/Results: Breast cancer and cervical cancer are widespread among South Asian Women. Studies suggest that access to pap screening is limited for South Asian women compared to other Asian American and minority groups (Ahmed, Agarwal, et al.). Studies report that principal concerns for South Asian elderly include lack of mobility, physical disability, dependence on children, lack of information on eligibility for Medicare benefits, language issues, loneliness, and lack of social support system (Ahmed, Agarwal, et al.). Most of the studies found, tobacco use, areca, vaping, and nut preparation are associated with different types of cancers, such as oral cancer. Tobacco and vaping products are commonly used among SA immigrants. Besides, micronutrient deficiencies, iron deficiency anemia, vitamin A deficiency, and zinc deficiencies contribute to obesity, cardiovascular diseases, type 2 diabetes, and cancer (Prakash et al., pg. 17-24).

Evaluation/Conclusion: A study reported that intervention with a calorie-restricted, relatively low-carbohydrate diet for three months resulted in weight loss and improved insulin sensitivity and associated CVD risk factors in overweight, insulin-resistant South Asian Indian women living in the United States (Volgman et al.). These interventions will help the South Asian Community of Crossroads4Hope in their dietary pattern, and partnership with dieticians/initiatives will help reduce the risk of CVD, diabetes, and cancer.

Title: COVID-19 Generalist: Disease Investigator, Contact Tracer, Clerk

Name: Grace Jensen

Preceptor: Peter Tabbot, Health Officer

Agency: Rockaway Township Division of Health

Purpose: To evaluate the efficacy of COVID-19 contact-tracing by analyzing COVID-19 case data, and to help assure regional response to COVID-19 risk.

Significance: The COVID-19 pandemic has caused hundreds of millions of cases worldwide, 2.6 million deaths globally, and 564,00 deaths in the U.S., alone. Unfortunately, these numbers are still on the rise as the pandemic enters its second year. Morris County, N.J. has seen over 40,425 cases and has suffered almost 1,200 deaths at the hands of the virus (NJDOH, 2021). The Rockaway Township Division of Health is working with the NJ Department of Health (DOH) to slow the spread of the virus by conducting case investigation and contact tracing among residents of its five-town jurisdiction, including Rockaway Township, Butler Borough, Boonton, Jefferson Township, and Victory Gardens, as well as working towards getting the most vulnerable populations the resources they need to get through this pandemic.

Method/Approach: Through case investigation and contact tracing, the goal of the Rockaway Township Division of health has been to slow the spread of COVID-19. Case investigators reached out to infected residents to gather information on their living situation and find out who they may have been in close contact with within 48 hours prior to developing symptoms or testing positive for COVID-19. A contact tracer then quickly called any close contacts of the positive COVID-19 cases to inform them of their exposure and go over the recommended quarantine and testing protocols as directed by the CDC. Contact tracers then followed up with their assigned contacts throughout their 14-day quarantine period to check for symptoms or onset of illness.

Outcomes/Results: The Rockaway Township Division of Health's jurisdiction saw a total of 1,640 cases as of November 24th, 2020. Over the ensuing 18 weeks, the number of cases increased 74% to 6,300 cases as of April 6th, 2021. This indicates that out of the 65,000 residents of the 5 municipalities served by Rockaway Township, about 9.8% of residents have been infected with COVID-19 as of April 6th. During this same period, the state of New Jersey saw a 62% increase of COVID-19 cases, increasing from 313,863 cases on November 24th, 2020 to 820,686 cases on April 6th, 2021, indicating that 0.9% of the 8.882 million residents of New Jersey have been infected with COVID-19.

Evaluation/Conclusion: While the CDC recommends 30 contact tracers per 100,000 residents, the Rockaway Township Division of health has about 7 contact tracers for the 65,000 residents of their jurisdiction. This is about one-third of the number of contact tracers recommended by the CDC to slow the spread of the pandemic. As more residents of New Jersey are getting their COVID-19 vaccines, the number of COVID-19 cases is on a slow but steady decline. While the pandemic is far from over, there is a light appearing at the end of this long tunnel. The Rockaway Township Division of Health will continue to implement measures to ensure the health and safety of the residents of the five towns they serve, including diligent case investigation and contact tracing to slow the spread of this highly infectious disease.

Title: Pilot Retention Program to Reduce Short-term Employee Turnover

Name: Catherine Jones

Preceptors: Direct Supervisor: Lisa Knothe, Director of Human Resources

Project Supervisor: Shalini Harninarain, HRIS Operations Manager

Agency: Children's Specialized Hospital

Purpose: Analyze turnover trends to create a pilot retention program that aims to reduce short-term employee turnover in three positions with above average turnover.

Significance:

- 1. High turnover, especially within the first 90 days of hire, costs organizations unnecessary resources such as time and money and affects the organization's productivity.
- 2. In 2020, Children's Specialized Hospital had a 14.1% turnover rate. Three positions that were large contributors to this total were Environmental Services Aide which had an individual turnover rate of 46.2%, Psychotherapist at a rate of 54.6%, and Certified Nursing Assistant at 23%.
- 3. Children's Specialized Hospital has narrowed the margins for employee turnover but is working to improve their onboarding process to reduce the short-term turnover in these roles.
- 4. The pilot program I am creating will help the human resources department determine strategies that should be implemented in their onboarding process.

Method/Approach: A team meeting analyzing turnover statistics across all of the jobs in the organization determined three roles with the highest turnover to focus on. Background information about the roles such as the job functions, required education, and prior experience was then analyzed to determine possible reasons each role yielded such high turnover. Included in this was data that had been collected from employee exit interviews that were conducted before participating employees separated from the organization. After determining that many of the individuals leaving the three roles under review separated from the organization in the first 90 days, it was decided that the onboarding process needed improvements. Research has determined that employee engagement is the key to employee retention so the goal was to implement initiatives to increase employee engagement.

Outcomes/Results: Research revealed many ways employee engagement could be increased throughout the onboarding process. After determining what would work best for the organization, six key initiatives were selected. The selection of initiatives aimed to address a variety of employee needs that were determined as a factor in an employee's decision to leave. The initiatives included an organization fact sheet that would give new hires information on the organization's achievements and awards and an employee assistance program magnet for easy referral. Additionally, a new recognition incentive was proposed along with a new hire mentor initiative, manager and employee one on one meeting, and ongoing career coaching to help employees set and achieve career goals.

Evaluation/Conclusion: Reduced turnover within the three roles under review will prove the initiatives selected to be successful. Since these metrics will not be available in the timespan of this project, increased employee satisfaction and engagement can also prove this project to be beneficial to the organization. A satisfaction survey would be a key tool in determining employees level of satisfaction with the implementation of the new onboarding initiatives.

Title: YMCA Youth Health Education Program Assessment

Name: Macey Jordan

Preceptors: Gina Stravic, Executive Director

Agency: YMCA Raritan Valley

Purpose: To develop and implement a health education program to children grades K-8 at the Raritan Valley YMCA and evaluate the program's effectiveness.

Significance: Nearly one in five children in the United States are obese. In New Jersey, 15% of children aged 6-10 and 17% of children aged 11-14 were overweight due to poor health habits. Obesity can be combated by instilling healthy lifestyle habits such as proper nutrition, exercise, sleep, and adequate water intake. At the YMCA, their mission is to nurture the potential of kids, promote healthy living, and foster a sense of social responsibility. Educating both parents and children on healthy habits at a young age or prior to adolescence may help lower the obesity rates. This project uses virtual lesson plans and hands-on activities to educate children about the importance of healthy habits and the consequences of an unhealthy lifestyle.

Method/Approach: The overall efficacy of the health education programs were tested in a quasi-experimental study. Fifty children aged 6-14 enrolled in the Raritan Valley YMCA youth program between January 21st-April 10th were given a weekly written test to complete before the lesson was administered. After the educational health video was shown, children were given a second opportunity to complete the same test. The effectiveness of the health lessons were measured on the improvements of the raw test scores after watching the lesson. In addition, parents were sent several informational health newsletters regarding topics such as the importance of fitness and nutrition for their children.

Outcomes/Results: After viewing the video lesson and completing both the pre-test and post-test, raw scores were taken and averaged by age group. The separate age groups included ages 6-8, 9-11, and 12-14 years old. Among children aged 6-8 year old the average test scores of the pretest were 32%. Similarly, children aged 9-11 averaged a score of 54% and children 12-14 received an average score of 62%. The overall average of all children in the study was 51%. After watching the video lesson and completing several hands on activities and educational worksheets children completed the test again. The score increased among all groups. Respectively, children aged 6-8 averaged a score of 75% on the second test, children 9-11 averaged a 87% and children 12-14 averaged a 98%. The overall test score for the second test was 89%.

Evaluation/Conclusion: In conclusion, test scores improved amongst all three age groups after watching the video lessons. For children aged 6-8 scores increased by 43%. For children aged 9-11 scores improved by 33%. Lastly, children aged 12-14 had increased scores by 36%. The increase in scores for all the children as a whole was a 38% increase. Therefore, it can be concluded that the health lessons were successful at educating children aged 6-14 enrolled in the Raritan Valley YMCA youth program between January 21st-April 10th. This can be observed through an increase of test scores on written review tests. In addition, it has been reported by my supervisors that the program has led to further successes such as more diligent hand washing, more physical activity, and healthier packed lunches among the children who were enrolled in the program.

Title: The Significance of Manufacturers and the Impact of the 340B Program - White Paper

Name: Archana Josyula

Preceptors: Fatimah Muhammad - 340B Pharmaceutical Services Department Program Manager

Agency: Saint Peter's University Hospital 340B Pharmaceutical Services Department

Purpose: To analyze the ways that the 340B Drug Discount Program at Saint Peter's University Hospital (SPUH) helps to increase health equity by expanding to vulnerable communities to provide care for underserved populations in Middlesex county and its involvement in areas such as oncology, infusion drugs, biosimilar drugs, genetics, mortality/morbidity, diabetes, and finance.

Significance: Although the benefits of the 340B program are clear among hospitals nationwide, many people in the healthcare industry have been questioning the value of it, arguing that some covered entities take advantage of it by using the financial savings for their own benefit. The 340B program has been able to assist covered entities for more than 25 years and started in 2014 at SPUH. Through this program, SPUH has been able to provide discounted prescription drugs and acquire savings. These savings allow the hospital to serve underserved populations and increase health equity. Many patient benefits are at risk because of drug manufacturers refusing to provide 340B discounts to covered entities. For example, the manufacturer Zenzyme cut off 340B pricing on genetic drugs that resulted in about 25% reduced savings for SPUH. The 340B savings are essential in serving several populations and many would be impacted negatively without them. This white paper explores the various ways the 340B program helps these populations achieve health equity and therefore improve the quality of life for eligible patients.

Method/Approach: Several steps are being taken to complete this white paper. Interns are conducting research-based steps with the 340B Pharmaceutical Services Program Manager to collect data. Interviews are being conducted with healthcare professionals in the hospital such as the Chief Financial Officer, Director of Managed Care, Director of Finance, Chief Nursing Officer, and other employees in the 340B pharmaceutical services department. The information collected from these interviews is being used to contribute to the white paper in terms of the program's impact and its importance at SPUH as well as nationally. Data was also collected from previously published white papers and other reliable sources.

Outcomes/Results: The white paper is in the process of being completed and at its conclusion will be published, making it a first for the 340B department. This paper will go into detail about various topics such as the general scope of the 340B program, rules set by manufacturers, HRSA guidelines, and the importance of the 340B program in several areas. It will also talk about how the program has an impact on the healthcare industry overall. Through research, evidence has shown that hospitals are using savings from their 340B program to expand care and increase health equity.

Evaluation/Conclusion: A good measure of this project's success will be to see the paper being the first published by the 340B Pharmaceutical Services Department. Since this paper is heavily research-based with a lot of qualitative data, it's hard to measure with numerical data. A satisfaction survey that the 340B pharmaceutical services team can complete would be an appropriate method of evaluation. This can help gage how successful the white paper was as a whole. At the end of completing this white paper, a better and deeper understanding of the 340B program and its impacts will be achieved.

Title: Expanding equal health and hygiene to the homeless by providing care packages

Name: Hellen Juarez

Preceptors: Direct Supervisor: Kelsey Lynch, Co-Founder of Archangel Raphael's Mission

Agency: Archangel Raphael's Mission (ARM)

Purpose: To decrease disparities and increase life expectancy of the homeless population in New Brunswick, New Jersey during extreme weather conditions through an optimal care package

Significance: "On any given night, more than 610,000 persons in the United States are homeless; a little more than one-third of these are families. Homeless persons are more likely to become ill, have greater hospitalization rates, and are more likely to die at a younger age than the general population. The average lifespan for a homeless person is between 42 and 52 years" (Maness, D., & Khan, M. 2014). Archangel Raphael's Mission is to provide an equal chance for this population to succeed despite the adversities this population endures. To complete this mission, Archangel Raphael mission provides food, warm garments, some toiletries, and clothes along with the implementation of a portable hand washing station and a shower unit for the homeless. The needs of this population vary on the weather, making it difficult for ARM to provide the necessary items during those times. The winter weather is excruciating since hypothermia is a major concern. The project developed, consisted of formulating a winter care package for this population. The project provided accuracy of the essentials needed and the appropriate budget to create an optimal care package that will be able to relieve some stress that this population endures during the extreme weather conditions.

Method/Approach: Previous and recent data was analyzed, which was obtained through an excel document provided by one of the captains of ARM. The data was organized and put into categories to formulate what essentials were required during extreme weather conditions. An investigation and a literature search was conducted that included statistics of homelessness and the dangers of extreme weather to this population. The data and literature research, provided clarity to formulate an optimal care package.

Outcomes/Results: The analyzed data and research conducted made transparent that warm garments such as socks, clothing articles, which included: hats, gloves, hand warmers, shirts, pants, shorts, coats and hygiene products are required for the homeless population to be protected during extreme weather. During winter weather, Between December 2020- February 2021, 797 clothing articles, 604 socks, and 26 hygiene products were distributed. It is crucial to recognize what is necessary and what actions need to be taken because the research conducted simplified that a homeless person's life span is shorter than a non-homeless person. With the current situation of the pandemic, more people are becoming homeless due to job loss.

Evaluation/Conclusion: Archangel Raphael Mission assists the homeless population by providing services and supplies which in turn reduces/prevents deaths. The care packages will assist the homeless population when weather conditions are unbearable. To measure the success of the project the homeless population will be asked to fill out a satisfaction survey of the care packages during the shifting of weather temperatures. The project should be reassessed every year, especially in NJ because the weather is very unpredictable.

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Title: Interaction Design and User Experience of Healthcare Dashboards

Name: Pooja Kansagra

Preceptors: Krishna Sunkammurali, Project Supervisor

Agency: Jiseki Health - Millbrae, California

Purpose: To perform an Interaction Design (ID) and User Experience (UX) review of the internal dashboards system.

Significance: Jiseki Health is a growing, small healthcare business that uses its own internal dashboard technology to have concierge agents contact members that need services. As the small company grows into a larger company, concierge agents are finding more organizational frustrations, dysfunction, and pain points within the internal system that hinders their progress. Creating a new and improved internal dashboard system that centralizes the needs of concierge agents and providers through appropriate mockups and production assets, while taking into account the developers' perspectives, will improve functionality while controlling its continuous growth in members and staff.

Method/Approach: Meetings were held with various teams across many disciplines such as human resources and development to understand the internal dashboard system and the jargon used with the system. Semi-structured one on one interviews were conducted with concierge agents to better visualize their workflow from the start to end of their shifts taking into account all the files, external programs, and external software opened alongside the dashboard when chatting with members. Multiple storyboards were created that outlined every step that a concierge agent does from the start to end of their shift. All the Jiseki Health teams, including the concierge agents, reviewed the layout to make sure that all the information was accurate and requested additions or changes.

Outcomes/Results: First, low-fidelity mockups were created that aimed to alleviate any pain points that were mentioned in the interviews and meetings as well as any potential pain points that were not mentioned. These mockups were evaluated weekly to continue modifying the designs based on concierge agents needs and product developers capability on the backend. Then, high-fidelity mockups were designed which incorporated all the feedback from the low-fidelity mockups and had more finalized details in the design. Changes from the original low-fidelity mockup to the current high-fidelity mockup included a modified chat panel, added chat protocol browser, case management related to specific tasks, restructured information architecture of member profile section, and newly designed user interface. To measure the success of the high-fidelity mockup, anonymous satisfaction surveys were sent out with various questions, including whether or not the employee approved of the finalized high-fidelity mockups. The high-fidelity mockups were approved by a total majority vote of 4/4 made up of the product development team.

Evaluation/Conclusion: Although the high-fidelity mockups are approved, it is not the last version of the internal dashboard system. The dashboard will continue to be refined by future user experience researchers and designers to enhance its use as Jiseki Health grows in size.

Title: COVID-19 Workplace Safety Assessment

Name: Samara Kaplan

Preceptors: Supervisor, Dr. John McElroy, DMD

Direct Supervisor, Dr. Brian Paterson, DMD, MD

Agency: Central Jersey Oral and Maxillofacial Surgery, P.A.

Purpose: To oversee the COVID-19 safety regulations and aid in the establishment of safety guidelines in a healthcare setting.

Significance: COVID-19 has posed significant roadblocks to oral health care access. For months, many patients who had planned elective or routine oral health care procedures were not able to receive treatment. Beginning in June 2020, local public health figures and the New Jersey Dental Association (NJDA) deemed it safe for Oral Surgery facilities to resume a modified work schedule. In order to ensure the safety of the physician, staff, and patient, safety protocols must be established and maintained in all four of our office locations (Freehold, Matawan, Old Bridge, and Ocean, NJ). Information regarding safety precautions in light of infectious disease control in dental settings was collected from the Center for Disease Control (CDC), the NJDA, and the ADA (American Dental Association). The objective of this project was to assess the effectiveness of the COVID-19 precautions in the office and create a report of the findings based upon employee satisfaction.

Method/Approach: In January 2020, a task force was created to utilize information from the aforementioned websites and establish a protocol for workplace safety in light of COVID-19. Information on COVID-19 safety hazards and precautions relevant to dental offices was collected from the CDC website, NJDA website, and ADA website. Information from the CDC website regarding quarantine protocol for patients and staff depending upon history of exposure was recorded. After 4 weekly meetings, the task force successfully implemented a COVID-19 Workplace Safety Protocol in February 2020. As part of the protocol, the following changes were enforced: Employee and patient temperatures were recorded each day. Inventory of PPE and associated equipment was taken weekly. Patient health questionnaires listing risk behaviors associated with COVID-19 exposure were created to be completed by patients before entering each office. A condensed version of the COVID-19 Workplace Safety Protocol was edited to appear as an alert on our website.

Outcomes/Results: Between October 2020 and April 2020, the effectiveness of the original COVID-19 Workplace Safety Protocol continues to be monitored by the COVID-19 task force and discussed during weekly meetings. During this time period, there have been 0 workplace-related known exposures or associated cases of COVID-19. As a direct result of the implemented safety protocol, workplace safety has been maintained. Patients who have questions regarding the company COVID-19 protocol were directed to the website that includes a detailed list of the implemented COVID-19 safety precautions.

Evaluation/Conclusion: As the COVID-19 pandemic continues to evolve, CDC and ADA guidelines are expected to change. As new guidelines become available, the COVID-19 Workplace Safety Protocol will adjust to maintain employee safety. Maintaining count and re-ordering of inventory of PPE was challenging due to various nation-wide shortages, which were accounted for in the weekly inventory count.

Title: Food Policy Council Promotion and Outreach

Name: Marissa Kass

Preceptors: Raquel Yuhas, Head of Transportation and Logistics and Laura Malta, Special Projects

Consultant

Agency: Move For Hunger – Red Bank, NJ

Purpose: To increase the amount of fresh, perishable food rescued and delivered to food banks and pantries by promoting awareness and providing outreach to local and statewide Food Policy Councils and food rescue organizations across the US and introducing ideas for sustainable food rescue and fighting hunger.

Significance: Hunger and food-insecurity are issues that have faced many people within the United States. According to Gunderson and Ziliak (2016), there are about 12.9% of the US population that live in food-insecure households, which is approximately 41 million people. The United States Department of Agriculture (2010) has found that more than 133 billion pounds of food have been lost or wasted, equating to 161 billion dollars worth of food. The evidence found has suggested that there has not been an effective solution found to the problem of food waste and hunger in this country. In order to help connect the dots between hunger and food waste, Move For Hunger provides free transportation of food donations on behalf of food banks and pantries.

Method/Approach: To determine the states where Move For Hunger could have a major impact with its new fresh food rescue initiative, data was analyzed across three different areas within the organization: food donations during the 2020 fiscal year, current number of movers enrolled per state, and the amount of food donations by subtype collected during 1/1/2020-present. The main data collection tool used by this organization is Salesforce (CRM software), which created detailed accounts regarding email transactions, calls, and food transport information.

Outcomes/Results: After analyzing the reports from Salesforce and Food Policy Council outreach, it was evident that the states with significantly high rates of food donations and hunger relief organizations included California, Colorado, Illinois, and New Jersey. Data from the food donations made during 2020 showed that Arizona, California, Delaware, Illinois, Massachusetts, Maryland, New Jersey, Tennessee, Texas, and Virginia included the highest reported numbers with more than 100,000 pounds. Currently enrolled in the Mover Program for Move For Hunger, California, Florida, Illinois, New York, Texas, Virginia, and Washington reported the largest number of active movers with over 40 movers. Between 1/1/2020 and present day, Move For Hunger has donated over 6.1 million pounds of food. Perishable food donations during this same time included over 419 thousand pounds of food.

Evaluation/Conclusion: While perishable food donations are extremely successful within the organization, Move For Hunger is looking to create more opportunities for sustainable food rescue. Collaborating with other sustainable food initiatives including gleaning organizations, urban farming, and perishable food rescue are areas in which Move For Hunger is looking to expand their outreach across the country and make a larger impact on addressing hunger in the US. Through the use of Food Policy Council outreach and research on sustainable organizations across impact states such as Colorado, Illinois, New Jersey, and California, Move For Hunger will be able to increase their food rescue services.

Internship Abstract

Title: Importance of Maintaining Communication to Ensure a Positive MSK Patient Experience

Name: Sukriti Kaul

Preceptors: Nicole Chmiolek, Assistant Manager

Bridget Kelly, Team Lead

Agency: Memorial Sloan Kettering: Breast and Imaging Center (BAIC)

Purpose: To responsibly maintain constant communication between the patient and the clinical team and ensure that each patient is satisfied with the care they receive at MSK.

Significance: Inadequate communication has been known to be a leading cause of death in healthcare. According to a study published in Fierce Healthcare, poor communication has been a factor in 1,744 patient deaths and over \$1.7 billion in malpractice costs nationally in the past five years (Fierce Healthcare, 2016). Effective communication and supportive care assist patients and their families in navigating through a successful transition to palliative care in cancer (Detmar, 2002), thus, preventing any deaths and malpractice errors. During this project, the care coordinator will be responsible for acting as a liaison between the patients and the clinical teams and maintaining constant communication that is needed to ensure a positive patient experience.

Method/Approach: This project was conducted by simple clinical and patient communication observation during the entirety of the internship. Appointments were scheduled and coordinated according to patients' needs and convenience while making sure patients stay aware of every aspect of their treatment. Patients were seen/called to confirm appointments to ensure patient convenience before appointments were scheduled. In some cases, when patients could not be reached, voicemails were left, and/or appointment letters were mailed to their homes. Scheduled appointments and other information about patient care were also visible to patients on their "MyMSK" patient portal. Constant communication with the clinical team was also corroborated.

Outcomes/Results: While observing clinical and patient communication, different methods of communication seem to enhance the patient experience at MSK. The use of the "MyMSK" patient portal is beneficial and highly convenient to active patients at MSK. Appointment letters that are mailed home also ensure the patients are aware of their upcoming appointments. Most patients ask to be seen and/or called to schedule appointments to adjust appointments according to their convenience. Email communication between clinical teams is noted to be beneficial in filling in any gaps and answering any questions that patients may have, which the coordinator conveys to the clinical team.

Evaluation/Conclusion: Patients will be given satisfaction surveys to evaluate how successful MSK has been in maintaining communication with the patients. Additionally, coordinators will participate in monthly meetings with managers and discussion groups with coworkers to discuss the communication successes and gaps at MSK. This will help maintain a constant communicative environment helping to enhance the patient experience.

Title: COVID-19 Employee and Patient Vaccine Initiative

Name: Karandeep Kaur

Preceptors: Jenny Yuen, Assistant Manager, Outpatient Operations

Agency: Memorial Sloan Kettering Cancer Center - Manhattan, NY

Purpose: To promote and provide administrative support for MSK's employee and patient COVID-19 vaccine initiative.

Significance: As of February 2021, 511,764 individuals in the United States died from novel coronavirus. There have been at least 861,481 cases and 31,449 deaths in New York since the beginning of the pandemic. Memorial Sloan Kettering Cancer Center provides COVID-19 screening and offers the Pfizer-BioNTech COVID-19 Vaccine to all patients and employees to prevent Coronavirus Disease 2019 (COVID-19) caused by SARS-CoV-2. At the COVID-19 Koch Vaccine Clinic, the MSK team fosters warmth and builds relationships with patients while ensuring they are provided with the most effective care possible.

Method/Approach: MSK offered COVID-19 screenings and vaccines to eligible patients, staff, and community partners seven days a week January - March, then five days a week April - May. As a Care Coordinator, responsibilities include checking in, managing efficient clinic flow, and scheduling. For the first role, Care Coordinators check-in patients and verify demographic information. Patients are also required to fill the NYS vaccine form when checking in. For the second role, Care Coordinators maintain efficient clinic flow and wristband patients upon room-in. For the third role, Care Coordinators check-out patients and schedule Vaccine Dose 2 appointments for all patients receiving Dose 1.

Outcomes/Results: Since February 2021, we have managed a flow of 500-800 patients and employees a day during the checking-in process. When managing efficient clinic flow, 600 people have been roomed- in per day. For the third role, 250-300 people have scheduled Vaccine Dose 2 appointments per day. Overall, MSK has fully vaccinated 15,000 patients and employees.

Evaluation/Conclusion: The MSK vaccine initiative has been successful thus far, and our agency is well on its way to immunizing a large portion of our community against COVID-19 infection. It has an organized flow and structure making it easier for patients and employees to navigate. MSK continues to provide vaccinations at the NYC, Nassau, and Westchester sites. The broad expansion of vaccine eligibility has allowed the program to give vaccines to residents of communities with limited access. The next phase will be opening up vaccination clinics a little farther out than the community to reach more people. In fact, MSK recently partnered with NYC to open a new community COVID-19 vaccine clinic in Harlem.

Title: Annual Medical Consultation Data Analysis

Name: Lovedeep Kaur

Preceptors: Rajita Bhavaraju, PhD, Deputy Director

Agency: Rutgers Global Tuberculosis Institute - Newark, NJ

Purpose: To create an effective analysis and summary report for the 2020 Rutgers Global Tuberculosis Institute and propose recommendations.

Significance: Each year, tuberculosis (TB) kills over 500 individuals in the United States. Despite having low rates of TB compared to other countries, the U.S. is still yet to eradicate the disease. Rutgers Global Tuberculosis Institute (RGTI) is tasked by the CDC with strengthening medical consultation throughout the Northeastern U.S. region. Serving as a resource to TB medical consultants in the Northeast is a high priority. RGTI provides consultation to physicians, nurses, and other health care professionals via a system called ID Crowd. Experienced experts are available to answer questions about difficult medical and public health management issues. This project will focus on providing recommendations for the improvement of the database as well as creating an analysis and summary report for the 2020 medical consultation data.

Method/Approach: Background information about TB, transmission, epidemiology, diagnosis, and treatment were obtained via the CDC Self-Study Modules. The ID Crowd database was the primary means of collecting and analyzing data. From self-learning the database system to exporting consultation requests between January 2020-December 2020, a total of 139 cases were assessed. Tables and charts were created using Microsoft Office applications to highlight key findings such as the prevalence of cases, the type of cases (TB vs. LTBI), the number of requesters by occupational setting, drug resistance by type, and more. All this information was incorporated into the final Annual Performance Report for RGTI. After completing the report, recommendations for the ID Crowd database were suggested to strengthen TB medical consultation.

Outcomes/Results: Due to the COVID-19 pandemic and the transition to a new database system, data collection was scattered in ID Crowd. There was missing and inaccurate data for some of the reports which resulted in a delay with organizing the final report. Once the details for the 139 consultation requests were corrected, there were a total of 85 TB cases and 34 LTBI cases. Cases varied by age group where 30-65-year-olds had the most cases. There were 99 requests regarding adult cases and 19 related to pediatrics. Of the 139 consultation requests, New Jersey, New York, Philadelphia, and Virginia received the most requests. The majority of the requests were from physicians and nurses from local health departments, academic institutions, hospitals, and state health departments.

Evaluation/Conclusion: According to the TB Medical Consultation Evaluation responses, nearly 91% users rated the usefulness of consultation as excellent. Even clinicians that were knowledgeable in TB found the consultations insightful and helpful. In terms of timeliness of responses, over 91% heard back from TB experts within 1-3 days. Many liked the database because of the thorough written notes feature that allowed clinicians to upload pictures and documents. Suggestions to improve the overall medical consultation services include using a mix of methods to ask experts questions (phone calls and emails) as well as implementing organizational features into ID Crowd to easily access individual case details.

Title: Maternal Health Care While Incarcerated

Name: Noorukh Khan

Preceptors: Gloria Bachmann, MD, Professor of Obstetrics/Gynecology

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

Purpose: To address the neglect women face in prison, specifically concerning their maternal health.

Significance: Incarcerated pregnant women are vulnerable to complications with their pregnancies due to substance use disorders, poor nutrition, and sexually-transmitted infections. Their pregnancies are deemed "high risk," requiring special treatment to ensure their children are born in good health. The Advocacy and Research on Reproductive Wellness of Incarcerated People (ARRWIP) team estimated 1.8 million female arrests each year, of which nearly 55,000 admissions are pregnant women. Prisons are responsible for inadequate access to prenatal care, maternal mortality, and health complications due to pregnancy. When compared with women in the US population, women in prison or jail are more likely to have ever had a chronic condition, an infectious disease, any disability, a cognitive disability, or a mental health or substance use disorder (Bronson & Sufrin, 2019). These coexisting health conditions can complicate pregnancies and lead to higher pregnancy-related medical care needs during incarceration. The Women's Health Institute (WHI) is a significant part of Nurture NJ, that is a multiagency initiative that aims to make New Jersey the safest place in the nation to deliver a baby. Founded by the First Lady of New Jersey, Tammy Murphy, and her team who are making every effort to improve maternal health.

Method/Approach: Collecting data from inmates medical records is not an option for assessing the pregnancy status of female inmates because correctional medical records systems are not standardized. For example, some correctional facilities use electronic systems, others use paper charts, and each system tracks medical outcomes differently. Moreover, data-tracking efforts at correctional facilities sometimes are passed to administrators who are not necessarily medical staff members.

Outcomes/Results: Access to proper prenatal care and nutrition is essential to a healthy pregnancy, but there is minimal information on the prenatal care received by incarcerated women. Data on this subject can inform the scope of prenatal needs of women in jail or prison and can help inform or improve the delivery of prenatal care services. In 2004, 54% of pregnant women in prison reported receiving some type of pregnancy care while incarcerated. A 2010 report from the Rebecca Project found that 38 states had no policies requiring that incarcerated pregnant women receive basic prenatal care, and 41 states did not ensure adequate prenatal diets for incarcerated women. According to recent data from the Johns Hopkins School of Medicine, in some states, over 20% of prison pregnancies resulted in miscarriages

Evaluation/Conclusion: The nation's 5 largest jails, 22 state-departments of correction, and the Bureau of Prisons are reporting annually the numbers of pregnant women, births, miscarriages, stillbirths, abortions, maternal and neonatal deaths, and other, more detailed pregnancy-related outcomes. For instance, preterm births, cesarean sections, and medical and mental health conditions (eg, gestational diabetes, hypertensive disorders of pregnancy, HIV infection, substance use disorder). In addition, *The National Commission on Correctional Health Care* (NCCHC) has set standards for the treatment of pregnant women in prison. Including medical examinations, specialized treatment for pregnant women with substance use disorders, and limited use of restraints throughout the course of the pregnancy.

Title: Connecting Members of the Community Networking Association of New Jersey

Name: Khan, Sehar

Preceptors: Martinez, Lenny

Agency: Community Networking Association of New Jersey

Purpose: To promote communication and growth within all chapters of the Community Networking Association throughout the state of New Jersey.

Significance: Throughout the state of New Jersey, there are thousands of community organizations that aim to help the people of New Jersey (NJ CNP 2020). However, many of these organizations do not know about all the other community organizations that can help further their own message! The Community Networking Association (CNA) aims to bridge all these community organizations together to help connect resources and access to all those in need. The Community Networking Association works across numerous different counties, allowing organizations within and outside of counties to work together. Helping CNA with it's missions brings access and care to thousands of individuals throughout the state, and helps advocate for all those in need.

Method/Approach: To help promote communication between the hundreds of members of the CNA, flyers were created to help promote monthly meetings. There are seven chapters of the CNA, and all of these chapters hold separate meetings. By curating flyers for these chapters, members knew exactly when meetings were held and were reminded of these meetings. These flyers were shared and posted on social media, which captured the attention of non-members and encouraged them to attend these meetings. With numerous meetings being held monthly, the importance to keep track of the active members of CNA was needed. To do this, an organizational form was created to help keep track of the current and new members in CNA. This organization form was sent out to CNA groups and responses came in accordingly. This allowed for member information updates to be made while allowing CNA to know which organizations are involved and which are not.

Outcomes/Results: Flyers were made to help promote monthly meetings, and flyers displayed all the necessary information presented in one place. Date, time, and zoom link were all curated onto one flyer - making it easier for members and non-members to be reminded of meetings. CNA members also send these meeting flyers to interested non-members, which may help generate many new members at meetings. With members and new members attending meetings, the organization google forms created allowed CNA to keep track of all of its members, and update member information. Organizational forms list name, organization, and contact number - this form was sent to all members to fill out which then resulted in an organized master list of all members.

Evaluation/Conclusion: Promoting monthly meetings for chapters of CNA through creative work, such as flyers - allowed CNA to encourage members and non-members to attend meetings. Creative artwork detailing CNA and it's mission encouraged more people to come out to monthly meetings - and with more members present, more connections were being made! Organizational forms being curated allowed for better organization within CNA, while also allowing for master member lists to be made. The making of flyers advocating for CNA and the creation of organization forms helped promote growth and awareness of CNA within its members and non-members.

Title: Social Media Analysis for The Bloustein School

Name: Anum Khan

Preceptors: Tamara Swedberg, Instructional Technology Specialist

Agency: Edward J Bloustein School- New Brunswick, NJ

Purpose: Identify key trends and initiatives yielding greater engagement and presence on social media platforms.

Significance: For professional schools in higher education, social media serves as a direct gateway to their target audience; their student body. By expanding and analyzing trends on social media, schools are able to engage with their student body as well as attract potential students. Building a cohesive online presence for distinguished professional schools, such as the Edward J. Bloustein School of Planning and Public Policy at Rutgers - New Brunswick, is important to maintain. This project compared social media presence at other leading schools in order to increase engagement with students, staff, alumni, and faculty on Facebook and Instagram.

Method/Approach: Data was compiled for all posts on Facebook and Instagram at the Bloustein School from January 2020 to April 2021 through Sprout Social. Posts were compared by monthly intervals, analyzing trends in likes, followings, engagement, or other types of interactions. Posts were also analyzed by characteristics of the subject matter, and post format (still image, video, or carousel). Facebook interactions were also pulled to compare organic vs paid postings and their effect on likes, following, and page interactions. This data was compared with other professional schools suggested by the Communications Director.

Outcome/Results: On Instagram, there were 175 image postings (85%), 18 carousels (8.7%), and 14 videos (6.4%) in the last year. The most interactions were with student-focused content; the top 3 postings showing 764 impressions, 688 impressions, and 620 impressions. On Facebook, there were 220 image postings (44%), 15 videos (3%), and 260 posts covering text and links (52.5%). Of these, the most interactions were with event promotions and informational material. Paid impressions significantly increased by 70% when compared to organic impressions on the page. Johns Hopkins had success with a humorous animated COVID piece with over 100,000 Instagram likes, a Spotify-themed COVID post (9,000 likes), and a personalized sympathetic post utilizing grandparents and families with over 7,000 likes. The most interactions at comparison schools were animated images in a carousel format.

Evaluation/Conclusion: Instagram audience reacted better to content that integrated pop culture and shared relevant health information. To continue strengthening the Facebook profile continued posting about Faculty accomplishments, student awards, club activities, etc. will provoke the engagements needed.

Title: Promotion of Chiropractic care and patient outreach.

Name: Nasreen Khan

Preceptors: Direct Supervisor: Thomas Haveron, DC, Agency Owner

Project Supervisor: Annabel Haveron, Agency Owner

Agency: Haveron Total Health

Purpose: To promote patient outreach and inform the community about the importance of chiropractic care through utilizing social media marketing strategies.

Significance: In the United States, about 35 million people including adults and children, receive Chiropractic treatment. Chiropractic is a healthcare profession that focuses on disorders regarding the musculoskeletal system and the nervous system (American Chiropractic Association, 2018). People who seek Chiropractic care often experience physical discomforts such as pain in the back, neck, and in joints of the arms and legs. These issues typically have direct effects on the body's overall health and daily function. This project seeks to utilize social media marketing to promote Chiropractic care services in efforts of increasing patient outreach as well as educate the public on preventing further injuries and the importance of taking care of one's body.

Method/Approach: An Instagram page was created to spread information about the importance of chiropractic care. Posts were made every day and involved information about the dangers of untreated body pain and ways to improve recovery at home. The office itself and its services were also promoted such as the several products patients receive to use at home for extra care. Patient testimonies were also collected in efforts of creating a sense of reliability and trust to viewers as well as meeting the staff posts to create a personable connection and a sense of community.

Outcomes/Results: A total of 20 posts were created on the Instagram page throughout the course of one month. These posts were created with an overall goal of emphasizing the importance of chiropractic care and thus, promoting the agency itself. Millions of adults live with back or body pain that goes untreated and the page served to persuade people to get the care they need by educating viewers about the dangers of untreated pain as well as all the health benefits chiropractic care has on the body. The Instagram page was created from scratch with 0 followers, 0 posts and 0 account interactions. After posting informative content about risks of untreated body pain and the positive effects of chiropractic care as well as general information about the agency, interactions increased greatly. Posts were all uniquely designed for the agency and made visually appealing. After a month of these marketing strategies, 2,199 accounts were reached (an increase of 6,933.3%), 96 account interactions (an increase of 470%) were made, 16 website clicks and gained a total of 40 followers.

Evaluation/Conclusion: In efforts of educating people about the importance and benefits of chiropractic care, promoting patient outreach and thus, promoting the chiropractic services at Haveron Total Health, insights of the agency's Instagram was analyzed. To determine if the posts were informative and to persuade people to get the care they need, account interactions and website clicks from the page were measured, resulting in a great increase, signifying a successful outreach. Although these insights did not track how many people visited the office, the amount of accounts reached represents the amount of people who saw the informative posts and were able to be educated about the benefits of chiropractic care.

Title: Funding Social-Emotional Learning Programs for Blooming with Intention

Name: Rachel Y. Kim

Preceptors: Supervisor: Amber Rose Forrester

Project Manager: Rose Anne Uwague

Agency: Quartz Wellness Collective

Purpose: To strategize Quartz Wellness Collective's new funding procedure that will finance a positive psychology program, Blooming with Intention, implemented to train educators within New York City's public school system social-emotional learning practices and advocate for children's emotional and mental wellbeing.

Significance: Public health is different from medicalization because it analyzes the synergies of biological/epidemiological factors and social/emotional factors. According to a study by the Youth Risk Behavior Study, about 40% to 60% of US high school students are chronically disengaged at school (Greenberg et al.) To generate positive community outcomes such as literacy, higher levels of education, and decreasing violence, adolescent health must shift from surviving to thriving. Students who participate in SEL programs are more likely to attain higher levels of education and show an 11% gain in academic achievement within the program's year (Durlak et al.) However, schools that approach curriculum via positive psychology are often private schools in affluent neighborhoods. Less affluent children are blocked from social-emotional learning, and as a result, the wealth gap affects children's potential self-awareness, self-management, social awareness, relationship skills, and ability to engage in responsible decision making.

Method/Approach: Quartz Wellness Collective must apply for grants and begin a standard grant application process to finance Blooming with Intention at public schools as a non-profit. First, research was conducted to source grants. Then the grants were compiled into a list as a grant map giving other team members access to the grant map template. The grant map localized data such as deadlines and awards in a spreadsheet. Individual standard operating procedures were made for each grant. The compiled list of grant applications was analyzed to determine a general standard procedure that summarized best practices for sourcing and applying for grants.

Outcomes/Results: A Grant Standard of Procedure was developed. The results of the SOP found that the procedure has two core focuses: academic and task-oriented. The academic core must be finished before the task-oriented core because research on SEL knowledge supports the tasks that must be accomplished. The first core, academic, guides the required Letters of Inquiry and application essays that are necessary to convey why the program needs funding. The second approach, task-oriented, relates to how the grants will be applied such as the deadlines, writing, grant policy information, and tax information. The team will apply for a combined total of at least \$1,210,000 in grants by the end of 2021.

Evaluation/Conclusion: The select metric for evaluating the SOP is the amount awarded. However, no grants have been applied to yet. A wellness grant of \$10,000 by Neutrogena will be applied for before April 26th. Another grant by Comcast of an unknown amount will be applied for before May 7th. Bigger more sustainable foundations that emphasize children's health such as the W.K. Kellogg and the Walton Family Foundation are anticipated to be applied for in a partnership.

Title: Vape Education Program for Adolescents

Name: Sun Ho Kim

Preceptors: Gina Stravic, Executive Director

Agency: Raritan Valley YMCA

Purpose: To educate adolescents about the health risks of using e-cigarettes and methods to avoid using e-cigarettes, which can help to promote a healthy lifestyle, enhance knowledge, and increase self-efficacy.

Significance: The 2020 National Youth Tobacco Survey results found due to the rise of youth e-cigarette use since 2011, there are currently 3.6 million youths using e-cigarettes (Center for Tobacco Products, 2020). Furthermore, findings show a strong nicotine dependence among youth, with around 40% of high school age e-cigarette users are using a minimum of 20 days of the month and 25% use e-cigarettes every day (Center for Tobacco Products, 2020). In terms of nicotine, there are various health consequences, such as harming the lungs and impacting brain development, which is especially concerning for adolescents because brain development continues until 25 years of age (Centers for Disease Control and Prevention, 2020). The Raritan Valley YMCA actively promotes healthy lifestyles and youth development; therefore, by informing students about the various health consequences of using e-cigarettes, clarifying myths about e-cigarettes, and providing refusal skills can help improve health behaviors and overall well-being.

Method/Approach: Fifteen adolescents from grades five to eleven were given a pre- and post-test to assess the effectiveness of the vape program provided. The vape educational program was created with help from the CATCH My Breath Youth E-Cigarette Prevention Program and resources from the Be Vape Free initiative. Modifications were made to the lessons and separate research on the lesson topics was incorporated into the program to increase effectiveness. Lesson videos were created and provided to the participants; the four lesson topics were: health consequences, debunking myths of using e-cigarettes, reasons why young people may use e-cigarettes, and skills to avoid using e-cigarettes. The videos were made to be interactive with supplemental educational videos, discussion questions, and individual or group activities. Furthermore, the Raritan Valley YMCA Directors helped to facilitate the vape program for the youth attending YMCA programs.

Outcomes/Results: The participants demonstrated outstanding effectiveness of the vape program when measured with a pre and post-test consisting of eight questions based on four lessons (n=15). Overall, the program generated a 100% success rate. Specifically, there was an improvement from 53% to 100% in: knowing at least three ways to say no, decline an offer from a peer, understanding that e-cigarettes are not healthier than regular cigarettes, and that e-cigarettes are as addictive as regular cigarettes.

Evaluation/Conclusion: The positive results indicate the effectiveness of vape educational programs for adolescents in grades five to eleven. The lessons successfully taught adolescents the health dangers of using ecigarettes and increased self-efficacy to avoid using e-cigarettes. A limitation was that due to COVID-19 was a decrease in adolescents present at the Raritan Valley YMCA to participate in the program. Another limitation was the virtual aspect of the program, outreach to adolescents was difficult. Further implementing this program and continuing this program with YMCA adolescents will provide additional evidence of its effectiveness as the program is sustainable for continued use.

Title: Hunger and Homelessness Campaign Assessment

Name: Seree Kim

Preceptors: Kate Sundberg: Campus Organizer- New Brunswick

Agency: New Jersey Public Interest Research Group (NJPIRG)

Purpose: To raise awareness to people who are facing food insecurities within the New Brunswick community and collect donations through different campaign events on social media.

Significance: The latest research conducted by NJPIRG suggests that one in five students currently experience hunger and 55% of food insecure students choose between buying food and textbooks. In one study, just under half of all college students report that at least occasionally they don't know how they'll find their next meal and at the same time, college campuses create an average of about 142 pounds of food waste per student on campus (Zero Hunger, 2020). Moreover, based on the survey, 36.9% of our undergraduate students and 32.1% of our graduate students were food insecure which indicates that there needs to be more programming and awareness to combat food insecurity in college campuses (NJPIRG, 2020). With the Hunger and Homelessness Campaign, we help train, educate, and engage other students to help raise awareness of mitigating food insecurity and collect donations through various social media platforms that go towards helping those in need.

Method/Approach: During the Hunger & Homelessness women's week of action, several events were hosted to help raise awareness and fundraise in honor of International Women's Day. During the first week of action, infographics were created to celebrate the achievements of International Women's Day and for other students to learn more about how women are affected by basic need insecurities while also raising awareness on social media. The following day, phone banking friends and family took place to help donate for Women Aware. Next, students from the Hunger and Homelessness, 100% Renewable, and the New Voters Project campaign did a donation competition to see how much donations were made. In the next day, the webinar outreach event consisted of reaching out to friends and family members to join the women's week webinar on feminist economics and intersectionality, which was hosted the following day. Lastly, the women's week webinar was hosted as an educational event for students to learn more about women's role in STEM, macroeconomics, basic need insecurity, and intersectionality from the guest speaker, Dr. Radhika Balakrishnan, who is the faculty director at the Center for Women's Global Leadership.

Outcomes/Results: At the Hunger and Homelessness week of action, a total of five events such as Infographic Creation, Friends and Family Phonebank, Donation Competition, Webinar Outreach Event, and Women's Week Webinar were hosted on social media to help raise awareness for Women Aware. Moreover, a total of 35 students attended the webinar, a total of \$318 donations were made for Women Aware, and a press release about the webinar on feminist economics and intersectionality was published on social media.

Evaluation/Conclusion: During the week of action, the Hunger and Homelessness campaign raised \$158 for the shelter during a donation competition event on social media with the help of friends and family. The campaign's ultimate goal was to raise a total of \$200 to give a child at the shelter access to an arts therapy program. At the end of the women's week of action, the donation total of \$318 was collected through venmo and given to Women Aware. In the future, the Hunger and Homelessness campaign will continue to raise awareness for people affected by basic food insecurities and might even host more events in-person for the upcoming fall semester in the New Brunswick campus.

Title: Healthcare Information Delivery Surrounding Tuberculosis Care

Name: Owen Konzelman

Preceptors: Anita Khilall, MPH, Program Director, Education & Training

Agency: Rutgers Global Tuberculosis Institute - Newark, NJ

Purpose: To determine current strategies for educating tuberculosis (TB) patients and construct a standardized approach for the delivery of TB patient education in order to improve standards of care as part of a patient-centered approach at the Lattimore Practice.

Significance: Each year, approximately 9,000 individuals are diagnosed with TB in the United States (US). In 2018, there were 542 TB-related deaths in the US (Centers for Disease Control and Prevention, 2020). Worldwide, 1.4 million individuals died from TB in 2019 (World Health Organization, 2020). Due to the recent challenges created by the COVID-19 pandemic, TB care has been delayed for many individuals, resulting in increased morbidity and many who were lost to follow up. Rutgers Global Tuberculosis Institute (GTBI) provides state of the art clinical care for TB patients in Essex and Union Counties and also serves as a CDC designated TB Center of Excellence for training, education, and medical consultation. Constructing a standardized approach for patient education will improve the quality of TB care, in the midst of COVID-19, and aims to improve patient outcomes not only locally, but may establish a model to be duplicated by other TB Programs either regionally or nationally.

Method/Approach: A list of questions were developed by health educators at the GTBI's Education and Training Unit to assist in information collection surrounding the way in which certain concepts and key messages are communicated to TB patients. This consisted of 15 questions surrounding the terminology used to describe TB concepts and the use of patient education materials. Open-ended questions were used to obtain more detailed explanations from healthcare professionals responsible for providing patient education at various points of the TB care cascade. Eight staff members at the Lattimore Practice were contacted and scheduled for 60-minute virtual interviews over Zoom. Attendees consisted of physicians, nurses, nurse coordinators, TB program managers, and public health representatives.

Outcomes/Results: The interviews provided different perspectives about the lack of understanding and misperceptions surrounding TB infection, TB disease, and treatment of TB among patients. The staff interviewed collectively emphasized the need for updated patient education resources addressing complicated TB concepts and terminology. There was some variation in their responses to the questions, as the clinicians responded with more detailed explanations about specific TB concepts and the public health staff provided more general feedback. This highlights the need for more standardized methods for providing information to TB patients.

Evaluation/Conclusion: The development of standardized approaches to patient education can help address the lack of understanding and prevailing misperceptions about TB among patients surrounding the disease and its treatment. Utilization of resources by healthcare staff at Lattimore Practice can increase patient understanding, which may improve treatment adherence and patient engagement in their TB care. Follow-up studies can help evaluate additional limitations surrounding patient comprehension of TB.

Title: Cancer Prevention and Control Interventionist Training

Name: Reshma Krishnaraj

Preceptors: Dr. Paul Duberstein, Rutgers School of Public Health

Agency: Rutgers School of Public Health

Purpose: To review literature and findings on the behavioral and communication training of interventionists in cancer prevention and control.

Significance: Interventionist training in the field of cancer prevention and control is vital because it sets the stage for how physicians, patients and caregivers approach cancer treatment. It is necessary for the physicians and other professionals to give adequate advice, information, and care to people who are dealing with cancer; both the patient and their family members. In order to elucidate the often confusing medical jargon used in an oncology setting, it is important for physicians to be adequately trained. Our lab is heavily involved with the Cancer Institute of New Jersey and the Values and Options in Cancer Care (VOICE) study. This study explores various interventions in cancer treatment and health care utilization.

Method/Approach: A review of literature was conducted to identify areas in intervention training that require changes. In order to adequately gauge the state of intervention training in the field of cancer, a preliminary search was created on existing studies using databases such as PubMed and Google Scholar. A review of the content and outcomes of three studies that were the most relevant to interventionist training in the oncology setting, was created.

Outcomes/Results: Based on three relevant studies conducted in the last six years, it was determined that interventionists require more training and assistance prior to being certified. Furthermore, each study indicated that when training interventionists, follow-ups, supervision, and review of content was beneficial to delivering the intervention. The CONNECT study highlighted the importance of follow-up assessments prior to certifying interventionists. Another key point was that interventions should be understood by both specialists and non-specialists so that both can deliver the interventions in an effective and adequate manner. A study on telehealth as a method of conducting training as well as intervention delivery highlighted the importance of increasing accessibility of intervention training. A third study focused training lay health workers as interventionists in order to increase colorectal cancer screenings in reluctant communities.

Evaluation/Conclusion: In conclusion, interventionist training requires more adherence to intervention fidelity, check-ups, and guidance so that intervention delivery can be effective. Three studies conducted on interventionist training in the oncology field provide evidence for enhanced supervision and guidance as requirements for effective intervention delivery. One study emphasized the importance of group training sessions in order to increase accessibility of training. All three studies highlighted the need for role-playing scenarios to practice intervention delivery.

Title: LGBTQ+ Competency Training Series Evaluation

Name: Ashali Kumar

Preceptors: Domonique Noel, Community Cancer Control Specialist

Agency: Rutgers Cancer Institute of New Jersey

Purpose: To analyze data collected from a four-week long LGBTQ+ competency training series in order to see changes in knowledge and perception around select LGBTQ+ topics.

Significance: In 2019, data from the National School Climate Survey conducted by the Gay and Lesbian Independent School Teachers Network (GLSEN) showed how schools across the United States can be hostile environments for many LGBTQ+ students. Specifically, around "59.1% of students felt unsafe at school because of their sexual orientation and 32.7% of students missed at least one entire day of school in the past month because they felt unsafe or uncomfortable." (GLSEN, 2019). Based on the results from a 2017 GLSEN survey, 33% of LGBTQ+ students in New Jersey reported incidents of harassment and said school staff members effectively intervened. The Work Group is a non-profit organization which works with at-risk youth who are transitioning into adulthood. This training is important in ensuring that LGBTQ+ students have a safe school environment.

Method/Approach: Before the training began, staff members were given one week to complete a pre-training survey consisting of seven questions. These questions were centered around the following topics discussed in the competency training: LGBTQ+ terminology, allyship, establishing safe spaces within school/work environment, and cancer disparities in the LGBTQ+ community. After the training session, staff members were given one week to complete a post-training survey consisting of the same seven questions around the topics listed above.

Outcomes/Results: Of the full cohort (n=12), 75% of staff members responded to the pre-training survey given. Out of all the responses, 100% answered correctly when asked to match terminology. When asked about allyship, 67% responded correctly while 33% were partially correct. Eighty-nine percent of staff responded correctly to a question about safe spaces while 11% were partially correct. When asked about HPV within the LGBTQ+ community, 78% responded correctly while 22% were incorrect. Sixty-seven percent of staff members responded correctly to a question about barriers to cancer prevention, while 33% were incorrect. Of the full cohort (n=12), 67% of staff members responded to the post-training survey. All staff members (100%) responded correctly to questions on terminology, creating a safe space, HPV, and barriers to cancer prevention. When asked about allyship, 75% responded correctly, while 25% were partially correct.

Evaluation/Conclusion: Seventy-five percent of staff members responded to the pre-training survey while 67% responded to the post-training survey from the full cohort (n=12). The responses from the post-training survey compared to the pre-survey show an improvement in knowledge and awareness about the topics covered in the training. This training will serve as an effective tool to (a) spread awareness and knowledge to organizations on LGBTQ+ topics, and (b) improve conditions for members of the LGBTQ+ community. This training can be modified to cater to other cohorts such as health care providers, schools, etc.

Title: Tracking COVID-19 Impact on Industry, Policy, and Health in Midwestern America

Name: Christopher Kwok

Preceptors: Dr. Ronald Clark, Ph.D

Agency: Eagleton Institute of Politics/ Miller Center/ Center for Critical Intelligence Studies

Purpose: To analyze and track the impact of the ongoing COVID-19 pandemic through economic, public policy, and health measures for Midwestern states to better understand pandemic responses and identify best practices for future public health crises.

Significance: The COVID-19 pandemic has tragically taken over 512,000 lives since its initial outbreak in the United States. The Eagleton Pandemic Response Task Force has provided a continually updating database of public policy changes, economic impact, and epidemiologic measures as the COVID-19 pandemic unfolds, allowing decision-makers at various levels of government to make informed decisions about proper response and policy efficacy. While many previous resources tracked COVID-19 data for specific regions or metrics such as solely infection data or solely Iowa data, our project works to provide a comprehensive report reflecting a multitude of metrics ranging from industry-specific employment to hospitalization metrics for reference useful to all levels of governance throughout the Midwest and the nation as a whole.

Method/Approach: Dashboards for Illinois, Indiana, Iowa, Kansas, Michigan, Missouri, Minnesota, North Dakota, South Dakota, Nebraska, Ohio, Wisconsin, and a cumulative Midwestern region are updated each week with data from the Johns Hopkins Coronavirus Resource Center, the CDC, the Bureau of Labor Statistics, The Institute for Health Metrics and Evaluation, and state executive orders. We compare total confirmed infections, deaths, vaccine distribution, unemployment rate, and bankruptcies with the numbers from the previous year. The resulting dashboards comprise a continually updating timeline report of economic, public policy, and health impact of the COVID-19 pandemic for analysis.

Outcomes/Results: Unemployment in the Midwestern region peaked at 15.5% in April of 2020, but has recovered to 5.6% in November 2020 and 5.1% for January 2021, up only 1.56% from December 2019. Most states are nearing 1-2% of pre-pandemic unemployment levels. The prevalence of testing also increased drastically, from 1,053,864 total laboratory tests in May 2020 to 66,254,935 as of March 22, 2021. The Midwestern region saw a peak of 66,747 new confirmed infections on November 3rd, 2020, with each state individually peaking in November as well, but has declined to less than 15,000 daily infections each day of March 2021. In tracking the sheer magnitude of the pandemic, May 2020 saw the region with 168,891 total confirmed infections to 5,655,056 in January 2021 and 6,370,046 infections as of March 22, 2021.

Evaluation/Conclusion: In compilation of government reported data, a general recovery of Midwestern economies demonstrates gradual recovery from the initial job loss caused by the advent of lockdowns. Unemployment peaked in April 2020 and has decreased in the months since. Large expanses in testing prevalence coincided with lower reported positivity and fatality rates than initially found in 2020, possibly due to the identification of more mild or unidentified cases. The data gathered displays a gradual decline of infections and is supported by gathered projections. Such trends are identified through accumulation of COVID-19 and economic data throughout each of the 12 Midwestern states and visualized in dashboards for weekly publication alongside a database of executive orders and significant events. The dashboards created serve as an ongoing accurate reference of COVID-19 data. However, continual accumulation of data is vital to identify changes in trends as new strains of COVID-19 emerge and the distribution of various vaccines begin.

Title: Supportive Services for LGBTQ Officers in Law Enforcement

Name: Sofia Lamberto

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

Intern Coordinator: Allison Cabinian, MD

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

Purpose: To assess the supportive services currently offered to members of the LGBTQ community within the law enforcement profession, and identify areas where improvement is needed.

Significance: The number of Americans that identify as LGBTQ has reached a historical high, including around 15% of Gen Z adults. As this number rises, the number of LGBTQ police officers rises as well. Law enforcement is a stereotypically gendered occupation in which norms of heterosexual masculinity dominate social interactions and practices (Miller, Forest, et al. 2003). The novel *Coming Out from Behind the Badge* by Greg Miraglia describes the harsh reality of being homosexual as a law enforcement professional and offers supportive stories for police officers in overcoming the unwritten law enforcement standard of "don't ask, don't tell." There is minimal research on this subject but what is currently available suggests numerous complexities associated with coming out and struggling with sexuality in such a masculine environment. Using literature and a case study interview with an LGBTQ individual working in law enforcement, this project will assess supportive services currently offered to members of the LGBTQ community within the law enforcement profession, and identify areas for improvement.

Method/Approach: A case study interview will be conducted with an LGBTQ law enforcement professional to assess personal experience and determine what could be improved within the field to better support this population. Interview questions are written and approved in advance by preceptors. The study participant consented to a phone interview lasting about 30 minutes. The interview included 12 questions. In addition, a literature review will further evaluate current standards of supportive services within the field.

Outcomes/Results: Limited research exists regarding LGBTQ law enforcement professionals but what has been published describes a typically hostile environment for individuals who openly identify as a member of the LGBTQ population. Based on a case study interview with an openly transgender male police officer employed in New Jersey, the level of discrimination he faced was minimal. He attributed this to recent changes in quality standards with regard to how law enforcement interacts with the LGBTQ population in New Jersey. Programs like Garden State Equality, and the Safe Place Initiative are being implemented and maintained in New Jersey.

Evaluation/Conclusion: Due to a lack of evidence on the subject further research is needed. In the future, a range of interviews would provide more complete evaluation of experiences. While it is evident that New Jersey is more accepting of the LGBTQ population there is no current standard for supportive services offered to the LGBTQ population in New Jersey or other states. Given that being an open member of the LGBTQ population can be complex and emotionally challenging, in-house supportive services should be implemented as a standard to maintain emotional well-being.

Title: Covid-19 Education and Resources

Name: Hanna Latif

Preceptors: Dr. Ashraf Latif, Head Pharmacist

Agency: Sheefa Pharmacy, East Orange

Purpose: To promote the testing of covid-19 and develop an educational component on what can be done to help those who test positive in the Newark area.

Significance: Coronavirus disease (Covid-19) is defined as an illness that causes severe respiratory syndrome. Since the outbreak began in 2019 in Wuhan, China, there have been over 116 million cases worldwide and over 28.9 million cases in the United States (WHO). In New Jersey, among other states in the U.S, we have seen several new coronavirus strains discovered that are more infectious and deadly than before. With only 11% of the population having received the first dose of the vaccine, numbers need to be closer to 70% in order to ultimately stop the spread and hope to return to some state of normalcy. Until then, covid-testing, quarantining, and abiding by the CDC guidelines can help reduce and slow the spread as more people become vaccinated. With many people still traveling and not realizing they have the virus, many being asymptomatic, education and advocating for testing is highly important in hopes of reducing the rates.

Method/Approach: In addition to CDC recommendations of staying six feet apart, wearing masks, washing hands, and reducing travel, covid testing-testing saves lives by identifying people who are in need of care in a timely manner. According to the National Institutes of Human Health and Services, communities of color are disproportionately burdened by this pandemic. The pharmacy is located in East Orange, New Jersey, where 84.5% of the population are black with 18% of the population living below the poverty line. The first step is identifying the resources that the pharmacy has to offer including natural alternatives to boost your immune system. This included Vitamin C, Echinacea, Vitamin D, and Zinc. The next was the promotion of testing. With 15% not having health insurance, information about the Cares Act which provides coverage for testing is especially necessary. The creation of these resources is to educate a vulnerable community through pamphlets and online resources about where and how to get tested for covid-19.

Outcomes/Results: The creation of these educational resources proved to be helpful with many of the patients that came into the pharmacy for testing. A poll found that about 43% of the people coming into the pharmacy were unaware they could get tested if they did not have insurance without having to pay any cost. The resources also provided information on what to do if tested positive and informed them about vitamins and supplements like vitamin c, zinc, and echinacea.

Evaluation/Conclusion: The majority of customers were satisfied with the pamphlets and found it helpful to have all the information in one place. With misleading information across the board, it can be hard to navigate this pandemic. Success can be measured through surveying customers on how helpful they found the pamphlet as well as looking at the increasing number of people coming in for covid testing. A limitation of the survey that was done, was that it was not able to reach everyone who comes into the pharmacy on a regular basis, but the pamphlets will continue to be accessible for as long as needed.

Title: Promoting Health and Wellness in Substance Abuse and Mental Health Patients

Name: Amber Le

Preceptors: Janette Fleming, CFO and Administration Manager

Agency: Stairway Resource Center

Purpose: To advocate for and be involved in interventions for the high-risk population of substance abuse and mental health patients.

Significance: Addiction is a disease that continues to affect and negatively impact thousands of people across the U.S. In 2018 alone, over 70,000 people died from drug overdoses in the U.S. Affordable access to therapy and treatment is the key to changing the lives of many addicts. At Stairway Resource Center, a substance abuse and mental health treatment center, these treatment plans and interventions are instituted in order to prevent an addict from relapse or death. This paper will emphasize the connection between mental health disorders and substance use as well as the solutions that can be implemented to reduce the return to drug use and to promote a better life.

Method/Approach: The first step in connecting both mental health and substance use is the initial diagnoses of the correct illnesses. This is done by building a relationship with the client and understanding their mood, emotions, and responses to stimuli in life. The next step is to evaluate whether or not medication should be a part of the client's treatment plan, and to monitor a client on any new medication to ensure it is working to benefit the client. In addition, clients must meet with their individual therapist once a week to discuss their daily struggles, possible conflicts, any experience of cravings, and the presence of depression or anxiety. This method of psychiatric care and therapy works together in a balanced effort to combat the obsession to use drugs.

Outcomes/Results: Addicts are more than likely to experience depression and anxiety along with their substance use disorder. Many addicts are also diagnosed with Bipolar disorder and/or PTSD. "...Over 60 percent of adolescents in community-based substance use disorder treatment programs also meet diagnostic criteria for another mental illness. Data show high rates of comorbid substance use disorders and anxiety disorders—which include generalized anxiety disorder, panic disorder, and post-traumatic stress disorder. Substance use disorders also co-occur at high prevalence with mental disorders, such as depression and bipolar disorder, attention-deficit hyperactivity disorder (ADHD), psychotic illness, borderline personality disorder, and antisocial personality disorder." (NIH, 2020). In the bigger picture, it is important to communicate this message to addicts: that the care of their mental health will be beneficial to their effort to discontinue their use of drugs. With building healthy coping skills and learning to manage their mental health, it can be possible to live life without the use of drugs.

Evaluation/Conclusion: Surveys will be conducted in order to determine if the individual addict believes their mental health illness should be treated alongside their substance use disorder. Surveys will be conducted regarding their satisfaction with psychiatry and therapy. This awareness about the comorbidity of addiction and mental health disorders can help an addict understand their overall care. At Stairway Resource Center, clients are treated for both substance use history and mental health disorders. It is important that their disease is cared for, but it is more important that the individual understands the purpose for their care. The effort is to help an addict better understand the nature of their disease, and that begins with psychiatric and therapeutic care during their initial recovery process. In this way, solutions can be implemented to alleviate the symptoms of addiction and help lead an addict to recovery.

Title: Providing Hygiene Resources to Homeless Residents across Middlesex County

Name: Gianna Lella

Preceptors: John El-Maraghy, Founder and CEO

Agency: Archangel Raphael's Mission (ARMs)

Purpose: To construct an event to introduce Archangel Raphael's Mission's (ARMs) latest healthcare initiative, mobile hygiene units.

Significance: Seventeen out of every 10,000 people in the United States are homeless (National Alliance to End Homelessness, 2020). Homeless residents often do not have access to basic healthcare and hygiene, so Archangel Raphael's Mission is working to combat this issue in New Brunswick, NJ. There are approximately 430 households and 620 homeless residents in Middlesex County, NJ (Monarch Housing Associates, 2019), many of which rely on ARMs for basic healthcare and hygiene resources. Over the past year during the COVID-19 pandemic, ARMs mission has only become more important. Now more than ever, people are relying on resourceful, nonprofit organizations to help provide for themselves and their families in their everyday lives. A year ago ARMs began hosting handwashing stations for the homeless. This year, the team is rolling out mobile hygiene units to further improve healthcare and hygiene to vulnerable individuals.

Method/Approach: Social media was identified as the most significant planning tool for this event. There was a specific Facebook page created for the event, and posts were uploaded to Twitter, Facebook, and Instagram nearly every other day. High-profile local media were contacted with the hopes that they could attend the event, and fliers were provided to local homeless shelters and food banks to make residents aware of their available resources.

Outcomes/Results: ARMs Twitter page generated the most posts per month going from one post per month in January 2021 to 18 in April 2021. An Instagram page was recently created, going from zero posts per month to 16. Lastly, Facebook went from zero posts per month to eight. Overall, there was a 300% increase in social media engagement from January 2021 to April 2021. Through spreading awareness on social media, ARMs received 291 hygiene-related donations in the past four months. Fliers were delivered to three homeless shelters and food banks in New Brunswick, NJ to continue to spread awareness to ARMs target market. Archangel Raphael's Mission was able to safely and successfully host the mobile hygiene unit rollout event.

Evaluation/Conclusion: In conclusion, the rollout event was successful and ARMs was able to increase awareness for their organization. Each social media post drew more attention than the one before, causing site traffic and social media engagements. After the mobile hygiene unit rollout event, ARMs will be working toward getting more mobile hygiene units up and running, which will be able to help serve Middlesex County's homeless residents more efficiently and effectively. The mobile hygiene units are now in use, and ARMs hopes to be able to help residents across the county, and the state.

Title: To Identify the Vulnerable Populations in the City of Clifton during the Pandemic

Name: Marilyn Lema

Preceptors: Jennifer Kidd - Health Projects Coordinator

Agency: Clifton Health Department

Purpose: To assist the Clifton Health Department (CHD) with its COVID-19 mitigation and response efforts and to assist with identifying vulnerable populations most affected by the pandemic.

Significance: At the start of the pandemic, the City of Clifton was one of the hardest hit cities in the state of New Jersey. As of April 3rd, the total number of COVID-19 cases was 11,128 with a total of 246 deaths. To properly contain the spread of the virus, the CHD, along with staff and community volunteers, have run an outdoor weekly mass vaccination clinic for all NJ Residents. To provide equity for all, vulnerable population outreach coordinators and staff developed a Vulnerable Population Assessment (VPA). The goal of the VPA is to identify and provide outreach to vulnerable populations, such as senior citizens, non-English speakers, economically disadvantaged, uninsured, no or limited access to internet/technology, disabled, racial and ethnic minorities, homeless and undocumented immigrants. By researching secondary data from all four of Clifton's zip codes, Little Falls, Passaic County, and New Jersey, the CHD will have a better understanding of which populations need to be assisted.

Method/Approach: Research was conducted to gather secondary data in order to create a demographics table from the populations within Clifton, Little Falls, Passaic County, and New Jersey. The American Community Survey website was used to collect data between 2015 through 2019. An Excel spreadsheet was used to organize the information, which included Housing, Computer and Internet Use, Health, Income & Poverty, alongside the targeted populations.

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Outcomes/Results: From February to March, the Excel sheet was developed and finalized to determine areas with the most vulnerable populations. The most vulnerable populations were households who spoke a language other than English, had little to no access to the Internet, and lived below the poverty line. Both Clifton zip codes 07011 & 07014, had the highest percentages of households living below the poverty line (9% & 10.9%) and have residents that speak a language other than English (68.1% and 49%). Additionally, 07011 has the lowest percentage of households with an Internet subscription at 78.1%.

Evaluation/Conclusion: As a way to assist these populations, a hotline service was provided by the CHD. With this service, residents are now assisted with pre-registration prior to attending the CHD's vaccination clinic. As a result of the VPA, the CHD has been able to bring upon much-needed changes during this pandemic. The hotline service has so far been the best way to successfully tackle language barriers and lack of Internet access. The VPA has also helped the department develop ideas on creating outreach plans to provide the best outreach to these vulnerable populations.

Title: MEAL Coalition Media and Marketing

Name: Josie Libero

Preceptors: Sarah Teti

Agency: MEAL Coalition

Purpose: To create media and marketing strategies for programs to end food insecurity in the Metuchen/Edison community.

Significance: Having a social media presence helps pantries receive food and monetary donations when they need it most. Social media is also one of the best ways to get the word out about initiatives, volunteer opportunities, etc. Currently MEAL does not have a website or any social media accounts. This project focused on creating a website and social media accounts for MEAL to increase outreach initiatives.

Method/Approach: Research was conducted on how to make a website and social media tips and tricks for best interaction times. In order to identify the best website builder application I utilized website blogs such as https://www.websitebuilderexpert.com/, https://www.websitetooltester.com/, and https://www.websitetooltester.com/, and https://www.wpbeginner.com/. Based on the needs of our coalition and my inexperience in website design I decided that Wix would be the best application to utilize. To identify the best social media platforms I looked up other food pantries and coalitions and what they utilize. Some anecdotal data was accumulated based on assessing other pantries social media platforms and effectiveness. In addition, I utilized websites like Buffer to find out which social media platforms are most effective for audiences at large. Then, I talked to our coalition members to ask them what social media platforms they believe their constituents would have the easiest time engaging with.

Outcomes/Results: Social media accounts were established on platforms and their corresponding passwords. This included: Instagram, Twitter, and Facebook. Utilizing Wix.com, a website was created. There are 6 pages on the website: Home, Who We Are, Support Us, Events, Organization Highlights and Contact. There is also a donation button and links to our other social media platforms. There have been 7 organic posts on the Instagram feed so far that have also been pushed out to Twitter and Facebook.

Evaluation/Conclusion: These media platforms will allow residents from Metuchen and Edison to have a one stop shop for finding services like food pantries in their area. This will help give residents larger access and help raise awareness for the issue of food insecurity. Quarterly assessments of interactions and visits to each platform are scheduled for the next intern.

Title: Fossil Fuel use in New Jersey

Name: Sofia Lopa

Preceptors: Matthew Smith, Director of New Jersey Food & Water Watch

Agency: Food & Water Watch

Purpose: To spread awareness about and assist in the abolishment of harmful fossil fuel use and Fracking in New Jersey and throughout the United States.

Significance: We are currently living in a climate crisis that not only impacts our environment but our health and quality of food and water sources. In New Jersey, there is a lot of impact from fossil fuel use due to high populations within and around the state and the use of fracking and oil drilling in the area around the state. Food & Water Watch holds New Jersey local officials accountable for policies that impact climate change. By informing New Jersey residents about the dangers and harms of fossil fuel use along with current projects, we can push policies that reduce and prohibit fossil fuel use and increase the use of sustainable and clean energy to protect our health and the environment.

Method/Approach: Many different projects throughout New Jersey are constantly being monitored by Food & Water Watch. When these projects are proposed by different fossil fuel companies, outreach is first done with local residents who might be directly impacted and then with their local government officials. Phone Banking is the method of outreach for local residents since the pandemic has begun. During outreach, the project and harmful impacts of fossil fuel use is explained to residents. There might also be an ask for the residents to somehow get involved with the campaign against the project. Outreach to local government officials is similar in the education part, but it is more focused on asking them to create an opposition for the project being proposed. Preventing these harmful projects starts with local residents and government officials, and it is important to get them to oppose the projects so companies and the government feel pressured to stop them.

Outcomes/Results: The work being done by Food & Water Watch is contributing to a major cause. One major goal of the company is to ban fracking and getting to the point of using only sustainable and clean energy in New Jersey and around the U.S. The role as an intern is to aid in this goal by helping to prevent any new fossil fuel projects in New Jersey. Educating people living in New Jersey about the harmful and dangerous effects of fossil fuel use and why it should be stopped was a focus during this semester. Many people throughout the state were informed, urged to sign petitions, attend meetings, and asked to reach out to their own local government about fossil fuel projects. Local government officials across the state have also signed petitions, considered campaigns and supported the efforts of Food & Water Watch.

Evaluation/Conclusion: To evaluate this fracking ban project, the amount of government officials who have signed on to the letter can be analyzed. Local government officials throughout the state have been asked to sign on to the letter to the President and Congress asking to ban fracking at the national level. The outreach under the New Jersey directors has gotten 42 local officials to sign on in New Jersey alone. Across the county, Food & Water Watch's efforts have gotten a total of 375 signatures. The fracking ban letter has now been sent to President Biden with strong support from local government, especially from New Jersey.

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Method/Approach: Many different projects throughout New Jersey are constantly being monitored by Food & Water Watch. When these projects are proposed by different fossil fuel companies, outreach is first done with local residents who might be directly impacted and then with their local government officials. Phone Banking is the method of outreach for local residents since the pandemic has begun. During outreach, the project and harmful impacts of fossil fuel use is explained to residents. There might also be an ask for the residents to somehow get involved with the campaign against the project. Outreach to local government officials is similar in the education part, but it is more focused on asking them to create an opposition for the project being proposed. Preventing these harmful projects starts with local residents and government officials, and it is important to get them to oppose the projects so companies and state and federal officials feel pressured to stop them.

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Title: Assisting the People in Need: Homelessness

Name: Lizbeth Lopez Perez

Preceptors: Kelsey Lynch - RN, BSN, Co-founder, Intern Supervisor

Agency: Archangel Raphael's Mission (ARM)

Purpose: To promote awareness of the homelessness community in New Brunswick through outreach activities and provide daily essentials with food meals and hygiene services.

Significance: In the United States, almost 568,000 million people experience homelessness on a given night (Homeless in New Jersey, 2020). In 2019, there were a total of 8,864 homeless men, women, and children in New Jersey (Homeless in New Jersey, 2020). Due to living on the streets, they are unable to obtain basic necessities which can put them at risk. The Archangel Raphael's Mission non-profit organization provides food, hygiene, and basic necessities services to those who are homeless and experiencing homelessness. Because food insecurity and lack of hygiene are significant issues in this population, continuously providing daily food services, hygiene kits, and a mobile shower unit in the spring, will assist the homeless by receiving crucial needs to prosper. In addition, promoting awareness is an on-going process as outreach activities are being held to accomplish this and gain more donations.

Method/Approach: ARM has partnered with the United Methodist Church located on George Street, New Brunswick to offer these services. The place is open seven day a week to provide meals and essential services. There are three stations in this organization: the kitchen where the food is warmed up and gets plated, the entrance of the place where people get their meals that include the meal, water, fruits, and silverware, and the clothing station where clothes, PPE and any hygiene supplies are provided. There are usually 60 to 70 meals being packaged every day. Of those meals, about 25 meals are sent daily to people who live in a governmental funding motel. The interns also promoted the organization to Rutgers Bloustein School and other organizations such as RWJ and local churches in which they received a lot of donations that included hygiene kits and money. Fundraisers at local restaurants were also established along with social media engagement to bring awareness of homelessness and promote this organization.

Outcomes/Results: Starting in February, 215 meals were distributed for the homeless and people in need. In March, a total of 468 meals were distributed. A total of 271 PPE were distributed so far this year. Due to on-going outreach activities to promote awareness, 291 care packages were assembled. 80 of them are COVID hygiene kits donated by Rutgers Alternative Breaks which includes hand sanitizer, gloves, first aid kits, and many more necessities to obtain proper hygiene. These hygiene kits will be distributed to the homeless and to the community when needed. Other care packages were donated by local churches and RWJ. Over \$500 in donations due to Rutgers contacts and fundraisers events. In terms of social media, there was an increase of 50% of interactions that included promotion and informational posts.

Evaluation/Conclusion: The data management system shows that as the months pass by, the number of meals and hygiene/care packages are increasing which portrays how essential this organization is. A limitation is how due to COVID, a grand dining service that ARM usually provides for the community was cancelled. These services will continue to operate to help people with food meals and basic necessities. Its success will be measured through the collective data management team and the hygiene donations received will be helpful especially for the mobile shower unit launching in May.

Title: Executive Summary Report on Virtual Learnings

Name: Fabiana LoPiccolo-Stewart

Preceptors: Christine Newman, Director of Community Outreach and Volunteer Engagement

Agency: AARP New Jersey

Purpose: To evaluate the effectiveness of AARP New Jersey's transition to remote work and develop an executive report on learnings and best practices for staff to use when developing future virtual work.

Significance: As a result of COVID-19, between the time of March 2020 to the present, 42 of the 50 United States have issued a statewide stay-at-home order. In the state of New Jersey, orders were put in place on March 21st, 2020, and several sanctions on businesses, schools, and events remain in place to this day (The Official Website for the State of New Jersey, 2020, np). In response to stay-at-home orders, many New Jerseyans, especially older Americans in the 50+ community, feel a heightened sense of isolation (Plagg, 2020, np). To combat this issue and adapt to the remote world, the AARP New Jersey State Office transitioned their in-person events to a virtual, zero-contact setting for volunteers and for the public. This was done to increase connectivity, adapt to the changing needs of the public, and maintain the office's pre-Covid-19 community outreach goals. This project uses data tracking tools to record the engagement and success rates of AARP New Jersey's virtual offerings, and uses the data to guide the creation and success of future offerings.

Method/Approach: Between March 2020 and April 2021, Microsoft Excel was used to track the number of people called and emailed about an event, the number of registrants and attendees, the attendance rate and response rate, and the per person cost of 67 virtual events. Data was extrapolated using Cvent and staff insights. While gathering data, a series of four interviews were conducted with staff members, where information was gained regarding their public facing communication and cadence tactics, their public facing virtual offerings, the level of volunteer engagement they were experiencing, and any additional learnings and best practices they had to offer.

Outcomes/Results: Quantitative data from the event tracker along with qualitative data from the interviews were synthesized to create a 15 page report on virtual learnings and best practices. The report underwent three reviews before being finalized and distributed to NJ staff. Final takeaways from the transition to virtual work revolve around the importance of communication and complying with the wants and needs of AARPs audience. Regarding communication, findings show that it is best to distribute event materials the week of the event, thus yielding higher rates of registration and attendance. Additionally, the involvement and feedback of volunteers is invaluable and must be prioritized, as this ensures participant satisfaction and increases future engagement. Overall, the report's findings will guide the planning and execution of future virtual events and help increase the success of AARP NJs offerings.

Evaluation/Conclusion: Through the report's findings on learnings and best practices, AARP NJs virtual reengagement rates now range from 20% to 30%. Post-event surveys will be utilized to evaluate the effectiveness of current and new virtual offerings. This feedback will gauge attendee satisfaction, generate suggestions for enhancing the virtual event experience, and will help the office increase virtual event registration and attendance numbers. These evaluations will take place immediately after all events.

Title: Insurance Coverage in Dermatology Patients Undergoing Isotretinoin

Name: Emily Louie

Preceptors: David Kiken, MD, FAAD

Agency: The Dermatology & Skin Surgery Center

Purpose: To analyze the effects that varying insurance plans have on the course of a patient's treatment.

Significance: Healthcare and the quality of its delivery see a wide variety of disparities. One factor contributing to one's care and access to care is their socioeconomic status, such as income, education, or occupation (Fiscella & Williams, 2004). Prescription medications, in particular, see the effects of these differing disparities among patients. With commercial health insurance plans, patients are able to receive branded, more expensive medications as their plans will cover the cost. For those with a lower socioeconomic status and less expensive insurance plans, insurance companies will only cover generic medications, making it too expensive for patients to receive the same products as those of a higher socioeconomic status. Even though two patients may present with the same exact issues and require the same exact treatment, their health insurance could be the deciding factor as to the quality of medication they receive.

Method/Approach: A list of eight patients that are all undergoing Isotretinoin treatment for acne was assembled working alongside Keriann Giacomazza PA-C, with whom each patient is being treated. Four patients have commercial insurance plans while the other four have Medicaid plans. A list of all the medications each group has been prescribed throughout their treatment was compiled. Each medication was then examined to determine if the patient was likely to have received the branded product that was prescribed or a generic version of the medication as a result of limited insurance coverage.

Outcomes/Results: Among the four patients with commercial insurance plans, 28 medications were used. The patients with commercial insurance plans likely received all 28 (100%) of the prescribed branded medications, as covered by their insurance. Between the four patients with Medicaid, 29 total medications were used. Of those 29 medications, 15 (52%) were likely switched to a generic version to be covered by their plans, while the other 14 (48%) remained as prescribed. The patients with commercial insurance plans had access to about two times the amount of branded products than their Medicaid counterparts. In analyzing eight patients in one office, a clear disparity displays itself among medication access due to insurance coverage. Factoring in all other types of practices, beyond dermatology and to all other levels of care, shows the scope in which these disparities exist and how one's individual care may be adversely affected based solely on their insurance.

Evaluation/Conclusion: The commercial health insurance patients had access to 100% of their prescribed products as opposed to the Medicaid patients having access to 48% of the exact medications they were prescribed. The conclusions of the study are limited due to the small sample size. Data will continue to be added as any of the eight patients involved experiences a change in medication courses. Additional Isotretinoin patients will be monitored to assess the ability to generalize results to the larger population.

Title: End-of-Life Advance Care Planning Education

Name: Nick Luberto

Preceptor: Jessica Brown - Chief Operating Officer

Agency: Goals of Care Coalition of New Jersey (GOCCNJ)

Purpose: To provide education for advance care planning and high-quality end-of-life care for all New Jersey residents through updating GOCCNJ's website.

Significance: 99% of providers who see patients 65 years of age or older said it was important to have conversations about advance care planning with their patients. Still, only 14 percent have billed Medicare for this discussion (Fulmer et al., 2018). Specifically, in New Jersey, 61% of residents have given at least some thought to their wishes for end-of-life care, but only 47 percent have talked to someone about their wishes (Rutgers University et al., 2019). This evidence suggests that New Jersey residents need guidance and specific information about communicating their goals and wishes for end-of-life care. Fulmer's survey also found that 46% of primary care physicians who see patients older than 65 say they often feel unsure of what to say during conversations about EOL care. This evidence is indicative that our healthcare providers are inadequately prepared to deal with advance care planning. Providing education through website content for end-of-life care and planning will address these inadequacies.

Method/Approach: One key mechanism to disseminate education for advance care planning and end-of-life care was creating new content for GOCCNJ's website. Through team meetings and research, it was determined that the current website is outdated and lacks a complete spectrum of information available to the community. The website needed more details about serious illness, special populations, spiritual care provider and social worker resources, options for care, and updated forms. After further research, a website outline was formulated that incorporated information pertaining to advance care planning, patient & family resources, provider resources, and advocacy & policy. The new website will incorporate this template's information to aid patients, caregivers, and providers in understanding advance care planning and end-of-life care.

Outcomes/Results: The result of this project is a draft information outline and copy for certain sections of GOCCNJ's updated website. The new website will now feature specific information about special population groups, specific treatment options, preferences based on an individual's condition, and general advance care planning information. This outline is only a part of the new website; the web developer and graphic designer will work together to integrate the new material and graphics into existing resources for one comprehensive website.

Evaluation/Conclusion: GOCCNJ felt that their current website was outdated and missing relevant information. This project ultimately updated and provided new information to display on the website to effectively inform and educate the community on advance care planning care and end-of-life care. The project's measure of success will be based on the dissemination of educational material to the public. When the new website is launched, metrics will be tracked to determine usage and engagement. We anticipate that awareness of issues surrounding end-of-life care will increase with website traffic. Due to this project's prospective nature, there are limitations to the evaluation, and the project will need to be monitored in the future.

Title: Diversity & Inclusion, Community Outreach Health Indicator Performance Overview

Name: Crystel Lubigan

Preceptors: Mary Kelso, Regional Director of Patient Access

Agency: Robert Wood Johnson University Hospital

Purpose: To analyze the patient demographic screening in the homeless population's health throughout the novel coronavirus disease (COVID-19) pandemic while looking for ways to better community outreach programs and services.

Significance: New Brunswick had an estimated 223 homeless people as of 2019. This number is probably higher now following the COVID-19 pandemic. Many people in the homeless population have serious medical conditions like HIV, diabetes, heart problems, mental illnesses, and other chronic illnesses, which puts them more at risk for serious COVID-19 complications. The Delivery System Reform Incentive Payment (DSRIP) team from Robert Wood Johnson University Hospital (RWJUH) at New Brunswick helps patients transition from hospital to home or a care facility to manage their health outside the hospital by providing them resources and support, such as shelter, food, and medication, to ensure their safety during COVID-19 pandemic.

Method/Approach: A retrospective review by the medical staff was completed to assess how low income patients that entered the Emergency Room Department between January- December of 2020 were assisted. The IT program generated a daily list of all the patient's personal information for the Delivery System Reform Incentive Payment (DSRIP) team. Anonymized data was taken from the patient reports and exported to Microsoft Excel. Tables and graphs were created using Microsoft Excel to highlight the key findings of patient demographics to show who qualified for the DSRIP Programs for the year of 2020 to present and to count motel vouchers in 2019 and 2020.

Outcomes/Results: The number of patients that qualified for the motel vouchers in 2020 were slightly lower compared to 2019, but the stays were slightly longer. From January to December of 2019, there were 37 homeless patients who qualified for the DSRIP motel vouchers with the average stay of 2.6 days. From January to December of 2020 there were 33 homeless patients who qualified for the DSRIP motel voucher with the average of 4.03 days. Black or African American was the largest racial subgroup (38%), followed by White (36%) represented in the data. Males accounted for 72% of the homeless population. Additionally, the most affected age group was the 50-59 range (44%).

Evaluation/Conclusion: The DSRIP program services were a great way to help the homeless population by offering them health care programs and services. Future outreach efforts for this population could explore job placement and permanent housing which will help them build a better life for themselves and contribute to the community.

Title: Promoting Vaccination Among New Brunswick's Hispanic/Latino Community

Name: Jenna Lugtu

Preceptors: Yesenia Hernandez, Program Coordinator

Agency: Robert Wood Johnson University Hospital Community Health Promotions Program

Purpose: To effectively compile COVID-19 vaccine information via infographic and encourage vaccination among the Hispanic/Latino community in New Brunswick, NJ.

Significance: Racial/ethnic minority groups are more vulnerable than Non-Hispanic whites to the consequences of the COVID-19 virus. All racial and ethnic groups considered in CDC COVID-19 hospitalization data had higher hospitalization rates than non-Hispanic white people across almost all age categories (CDC, 2020). Social determinants of health like environment, income, and education affect the capacity for good health of minority groups. This project serves to provide accessible vaccine education via the RWJUH Community Health Promotions Program Facebook page for the Hispanic/Latino community in New Brunswick and encourage vaccination among them in celebration of National Minority Health Month.

Method/Approach: Research on the three current FDA emergency-authorized COVID-19 vaccines was conducted through public databases (CDC, WHO, etc.). Information on dosage, efficacy, types of vaccines, method of vaccine immunization, and vaccine eligibility were compiled into a comprehensive infographic posted to the program's Facebook page in both Spanish and English as an organic post on 4/15/2021. Links to the infographic sources were provided for easy access to more detailed COVID-19 vaccine information. Feedback from the post was analyzed according to the number of views, likes, comments, and shares compared to the total number of followers on the Facebook page.

Outcomes/Results: The infographic posted on Facebook received 228 views as of 4/21/2021. There were nine reactions, including 7 likes and 2 shares.

Evaluation/Conclusion: Ongoing monitoring of Facebook post feedback in conjunction with an increase in social media influence (creating an Instagram page) will occur in an attempt to continually encourage COVID-19 vaccination among the Hispanic/Latino community in New Brunswick. The program's Facebook page will also continually post health education in both English and Spanish to help improve the health literacy of the Hispanic/Latino community.

Title: Tuberculosis Patient Education Materials Evaluation

Name: Isabelle Maloy

Preceptors: Olivia Dupont, MPH, Health Educator II

Agency: Global Tuberculosis Institute

Purpose: To identify gaps in the quality of tuberculosis (TB) and latent tuberculosis infection (LTBI) patient educational materials aimed to improve the knowledge and awareness of the disease offered by healthcare providers.

Significance: According to the CDC, there were 8,916 tuberculosis cases reported in the United States in 2019. In New Jersey, tuberculosis disproportionately affects people living in low-income areas and minority populations. The Lattimore Practice at the Global Tuberculosis Institute located in Newark, New Jersey seeks to decrease morbidity through diagnostic, treatment and prevention programs via treatment and epidemiologic investigation of latent TB infection and active TB disease. Providing patient education materials at the clinic and other TB programs will ensure that all populations can receive digestible information regardless of health literacy level.

Method/Approach: A survey to collect data was conducted via SurveyMonkey to healthcare professionals for the development of two patient education videos. One focus group session was conducted with eight members of the WeAreTB Advocacy group. The Zoom meeting recording was transcribed and a summary report was written to summarize the respective focus group. Lattimore staff and GTBI faculty were also contacted during the script development phase via email and phone. Individual interviews were then conducted with in-clinic staff from the Lattimore Practice via Zoom to provide qualitative data in creating a standardized curriculum for future education materials. In-clinic staff included project managers, nurses, public health representatives, and other health care professionals.

Outcomes/Results: The survey yielded qualitative results from 33 participants that displayed concerns for accessible and digestible patient education materials. Common misconceptions regarding tuberculosis included the difference between tuberculosis disease and latent tuberculosis infection. Focus group participants emphasized the need for educational videos in a multitude of languages. In-clinic staff voiced concerns regarding updated and easy-to-read pamphlets regarding TB and LTBI to provide to patients. Additional concerns included stigma surrounding TB disease, explanations of TB treatment, and overall health literacy. Materials are currently in the developing stages in collaboration with other faculty members and consultants.

Evaluation/Conclusion: Implementation of patient educational materials before, during, and after treatment will mitigate the stigma and concerns of the patient and their family. Further patient engagement can be increased via materials provided in multiple languages and videos with captions and other accessibility considerations. As a result of the variety of feedback regarding patient education from staff members, there will be a future project dedicated to creating educational materials and a standardized curriculum for clinic staff.

Title: Menopausal Health Issues in Incarcerated Midlife Women

Name: Afsara Mannan

Preceptors: Gloria Bachmann, MD, Professor of Obstetrics/Gynecology

Agency: Robert Wood Johnson Women's Health Institute

Purpose: To study the environmental conditions of incarcerated women and the associated impact on menopausal health to make policy changes that improve health outcomes in midlife women.

Significance: The United States has approximately 231,000 incarcerated women who face key health issues related to mental health, pregnancy, and interpersonal violence (Kajstura, 2019). According to Karlsson and Zielinksi (2020), incarcerated midlife women tend to have higher rates of gynecological conditions, such as irregular menstrual bleeding and vaginal discharge. However, factors such as poor access to specific medical equipment and hygiene products in addition to inadequate housing facilities lead to negative impacts on this sub population. The Women's Health Institute (WHI) will present research on the impact of the prison system on this population to the New Jersey Prison Reentry Commission in order to develop strategic policies that will create a safer environment for midlife women and ensure better menopausal health outcomes through trauma-informed, gender-appropriate counseling and treatment.

Method/Approach: Approximately one hundred publications were retrieved (via NCBI PubMed, Google Scholar, and Google search). Key words were incarceration, prison, inmate, structural racism, black, women, female, aging, gender differences, disparities, women's health, health care, chronic, substance use, mental health. From these sources, publications were then filtered for relevance to this topic.

Outcomes/Results: Incarcerated midlife individuals, especially as they enter the ages of 50 and older, are significantly more likely to have one or more chronic health conditions or disability than their community-dwelling counterparts. After adjusting for a range of sociodemographic factors and alcohol consumption, aging female inmates have significantly higher odds of hypertension, asthma, arthritis, cancer and hepatitis. Thus, it is recommended that midlife women be screened upon entrance to correctional facilities, for acute and chronic medical and psychiatric problems. Evaluation and screening will allow for the initiation of indicated treatment as well as continuation of active treatment, to stabilize preexisting conditions and limit disease progression during incarceration. Current prison health care practices fall short of long- established World Health Organization guidelines, indicating that policy changes must be administered to deliver care, especially to aging women within the prison system. It must also be recognized that the prison environment itself can play a significant role in stress levels due to higher rates of mental and physical illness as compared to the general population.

Evaluation/Conclusion: Alternatives to incarceration that preserve public safety and lead to improved health and public health outcomes should be rigorously pursued. Specific reforms must be made to the judicial system that scales back the use of prison for low-level drug crimes and instead redirects resources to prevention and drug intervention programming. There are several opportunities to evaluate racism, sexism and discrimination in society to limit disparities and incarceration rates while improving health care and rehabilitation of incarcerated midlife women who can make positive contributions to society upon reentry.

Title: Developing Visual Analytics Tools to Track Health and Social Service Referrals

Name: Joseph Mansonet

Preceptors: Stuart Altschuler, M.S., Director of Analytics and Insights

Agency: Trenton Health Team

Purpose: To develop a visual dashboard in Tableau to track community agency usage of the NowPow referral service and to visualize NowPow analytics.

Significance: The social determinants of health account for upwards of 80% of differences in population health outcomes (Kranz, et al. 2017). Social service agencies that provide services that address the social determinants of health are essential to the public's health. These social service agencies often focus on one specific social service, such as addressing food insecurity or housing. Individuals often need assistance with more than one social service, so referrals between agencies allow individuals to receive the help they need across different sectors. Referral services, such as NowPow, allow social service agencies to track the volume and efficacy of referrals made between organizations. Creating a dashboard to analyze how organizations are utilizing a NowPow will allow Trenton Health Team, the sponsor of the referral service, to help users make better use of referrals, and will allow agencies to better address the social determinants of health.

Method/Approach: NowPow utilization tracked for 40 social services organizations in the Greater Trenton area. Specific analytics included the number of logins, number of social service prescriptions generated, called eRx's, and number of tracked referrals generated. These analytics were then downloaded into an Excel spreadsheet and cleaned to account for null values, differences in the time periods of the data, and misaligned categories. This Excel spreadsheet was then imported into Tableau. Using this data, visualizations were created to show the volume of logins across organizations, change and growth over the past year, and consistency of logins and usage. These metrics are visualized in a dashboard generated through Tableau.

Outcomes/Results: The result of this project is a visual dashboard representation of the usage patterns of the NowPow users. This dashboard has the following visualizations: the number of logins over time, the percentage of total logins attributable to each user organization, the organizations with the most growth and the most room for improvement, and the most consistent users. The scope of the dashboard was narrowed to focus on the more accurate login data. The dashboard shows that ten organizations account for 85% of all use cases, that NowPow is more heavily utilized in the fall and winter, and that the top users used the services most consistently. This dashboard will be used internally at Trenton Health Team to determine which NowPow user organizations need additional guidance and training.

Evaluation/Conclusion: The creation of this dashboard highlights the areas that Trenton Health Team should focus on when working with partner organizations and NowPow users. The visual dashboard highlights two general groups of user organizations: highly engaged organizations and organizations that are not engaged. For highly engaged user organizations, outreach should focus on maintenance and continued support. For organizations that are not engaged, outreach should focus on convincing end-users to incorporate NowPow into their workflow. Future iterations of this dashboard are envisioned to draw data directly from NowPow live, that is, pulled directly from NowPow in real-time, as opposed to being pulled at regular intervals and to expand the measures included in the dashboard.

Title: Expanding Mental Health Resources in the Hispanic/Latinx Community

Name: Maria Martinez

Preceptors: Nelhy Barreiro, Director

Agency: NAMI NJ, NAMI NJ en Español

Purpose: To expand and promote the NAMI NJ en Español mental health support groups/ programs through outreach to other organizations in the state of New Jersey that cater to the Hispanic/Latinx community.

Significance: One in five adults in America suffers from a mental illness. The Hispanic population in America is continuously growing and health needs are too. According to Cardinal Innovations Healthcare, "Only 33% of Latinos with a mental illness receive treatment each year compared to the U.S. average of 43%" (2020). The National Alliance on Mental Illness of NJ and NAMI NJ en Español provides free support groups and educational programs to adults and families affected by mental illness to fight stigma and advocate for treatment. "In Our Own Voice" is one of the programs offered which seeks to decrease the discrimination faced by individuals living with mental illness. The Hispanic population in NJ requires more resources to tackle stigmas, raise public awareness, and lead individuals towards treatment for mental illnesses. Connecting to organizations in New Jersey that Latinos are integrated into will allow for the expansion of mental health resources for the community.

Method/Approach: Organizations offering Spanish programs were identified. The task was conducted through online searches for organizations, churches, or any advocacy groups in the state of New Jersey that have a large Hispanic population or cater to the population. Google and social media searches were used to identify these organizations. Organizations were categorized based on their respective county in New Jersey and organized in an excel sheet. The contact information obtained for each organization was a person of contact, email address, phone number, and a website link. A letter was drawn and used to contact these organizations via email to offer NAMI NJ's services.

Outcomes/Results: Developing a list of organizations with contact information serves as a stepping stone for the larger objective of expanding NAMI NJ's resources. The outcome of this project is the establishment of contact with organizations in New Jersey that cater to Hispanics. NAMI NJ will use the list created as a resource for future networking and outreach. Three organizations have been contacted thus far out of a list of over 60. One provider of mental health services has reached out to NAMI NJ en Español in response to one of the emails sent. NAMI NJ envisions that this contact will help render better referral services to the families who seek mental health care resources through NAMI NJ en Español.

Evaluation/Conclusion: The excel sheet with organizations, churches, and providers along with their contact information will be effective in establishing resources available to the Hispanic community in NJ and NAMI NJ en Español. NAMI NJ's mission is to improve the lives of individuals affected by mental health through advocacy and education programs. Offering presentations to these organizations allows NAMI the opportunity to provide the Hispanic population with resources to ease the burden of mental illness. This project is limited in the number of organizations that can be contacted, as only two organizations can be contacted monthly. There needs to be a further assessment to establish whether the organizations that have already been contacted are interested in NAMI NJ's services. It is recommended that follow-up emails are sent out stating the importance of establishing a connection with NAMI NJ.

Title: Raritan Valley YMCA Outreach and Engagement

Name: Iqra Masood

Preceptors: Direct Supervisor: Gina Stravic, Executive Director

Project Supervisor: Brian Rose, Director of Aquatics and Marketing

Agency: Raritan Valley YMCA

Purpose: To promote healthy habits among YMCA members and increase health messaging on the company website and social media pages.

Significance: The COVID-19 pandemic has caused restrictions on physical activity, which negatively impacts the mental and physical well-being of the community. According to an electronic survey filled out by parents/carers on behalf of children, 61% reported a reduction in physical activity levels and over 90% reported negative impact on mental health. The Raritan Valley YMCA works to promote youth development, healthy living, and social responsibility through the numerous services and programs that they offer. Promoting healthy habits among YMCA members through their website, social media accounts, and Spin-A-Thon event will allow the youth and adults to become healthy physically and mentally.

Method/Approach: Research on health topics was conducted online each week. About 80 posts were published on Facebook from January 25th to May 3rd, which worked to promote the youth activities and programs that the Y offers, as well as health tips for seniors. Similar content was posted weekly on the YMCA blog. Mailchimp emails were sent to 5,404 subscribers. Upcoming special events were posted on the "News and Special Events" website section. Google Adwords was used to create ads to increase website traffic. Spin-A-Thon was promoted through flyers, the website, and Facebook. A press release was published on various local news outlets including Sentinel EB, NJ Advance Media, and Patch East Brunswick. Website traffic was monitored through Google Analytics and Google Adwords. Facebook analytics was used as well. An Excel spreadsheet was used to summarize data.

Outcomes/Results: On average, the Facebook posts would reach 470 people per week. The 8th Annual Spin-A-Thon, which took place on April 10, 2021 was successful considering the state of the pandemic. Last year, 35 people attended Spin-A-Thon, while this year, 28 people attended. According to Google Analytics, in the month of January, 4,428 people visited the website. In February 4,985 people visited the website, and in March 7,370 people visited the website. The number of website users per month increased. According to Google Adwords, since January there has also been a total of 644 clicks for the campaigns created.

Evaluation/Conclusion: Emails, social media posts, blog posts, and news coverage has attracted a greater audience within Raritan Valley YMCA. This is measured by website traffic and social media engagement. An increase in interest for the YMCA will increase healthy habits within the community. Health messaging campaigns and tips will continue to be promoted on social media accounts and the Raritan Valley website, and engagement will be tracked. The weekly emails will continue to reach thousands of subscribers and promote the services and programs that the YMCA offers. Utilizing the Instagram and Twitter account more frequently can attract younger audiences.

Title: Analysis of Current Patient Cohort to Better Outreach Performance

Name: Olivia Maxton

Preceptors: Katherine Schaible, LSW Program Director

Hiral Shukla, Outreach Coordinator

Agency: Crossroads4Hope, A Cancer Support Community

Purpose: To analyze which communities are best utilizing Crossroads4Hope to tweak outreach protocol to reach more diverse patient groups.

Significance: The African American community has the highest cancer burden and the least amount of access to resources to diagnose and treat cancer than any other racial or ethnic group in the United States. Black women are 40% more likely to die of breast cancer than white women (Perry, 2013). Additionally, 33% of black women have reported experiencing racial discrimination from a medical professional (Dobson, 2008). New Jersey is no exception to these statistics; the black community is lacking access to the necessary resources to prevent, diagnose, and treat cancer. Crossroads4Hope understands the emotional, social, physical, and spiritual toll that cancer can take on patients and their caretakers, therefore the goal is to better adapt these individuals. By better understanding which communities are currently being served, Crossroads4Hope will be able to adjust goals to best bring access to more diverse populations. The African American population is highly cancer vulnerable, thus creating outreach programs that best suit the needs of this population is a priority. The more educated a patient and their caretaker feels during the cancer journey, the better the outcome for that individual's overall health.

Method/Approach: Data on demographics of past and current patients of Crossroads4Hope were collected, analyzed, and presented to the staff to show the clear gap in service to the African American Community. To increase outreach effectiveness and diversity, a survey was created to amplify the voices of these communities and their experiences in the healthcare system. Questions specifically about discrimination in the health care system and access to resources were posed to the participant. Lastly, an educational toolkit to increase outreach to the community was created. These toolkits included infographics, PowerPoints, social media posts, and brochures on topics ranging from Prostate Cancer in African American men to Basic Nutrition For Cancer Prevention.

Outcomes/Results: The projects that are setting the foundation for the next stage of work. This project does not come with direct, tangible results; all information and educational material need to go through approval within the company before being pushed out to the public. In terms of the data analysis, creating the surveys, and developing the educational toolkits, the work set the foundations for a data-backed outreach program that is sensitive to the communities being served. Brochures and PowerPoint presentations tailored to the African American community serve as means of education on cancer screening and treatment.

Evaluation/Conclusion: The goals are long-term but have potential to make huge change. Better understanding the black experience and how cancer impacts African American communities will allow Crossroads4Hope to tailor their outreach programs. Although there will be no immediate evaluation of successes, there will be a reevaluation on a bi-yearly to yearly basis to see if there is progress. Crossroads4Hope will remain adaptable in hopes of being the best they can for the community.

Title: Administering Vaccinations to At Risk Populations at Memorial Sloan Kettering

Name: Nancy McKeon

Preceptors: Jenny Yuen

Agency: Memorial Sloan Kettering Cancer Center

Purpose: To organize appointments for at risk populations to receive their COVID-19 vaccinations at Memorial Sloan Kettering. This includes staff members and cancer patients.

Significance: The COVID-19 pandemic is obviously a public health issue that requires dramatic intervention. In the New York metropolitan area, there is a significant need for vaccinations, especially for at risk populations. Memorial Sloan Kettering provides vaccinations for their essential employees as well as their patients according to state regulations. This vaccination program is aiming to provide protection to as many at need people as possible.

Method/Approach: Patients and employees are sent links when they are eligible to receive their vaccination. In addition, patients and employees can be added to a standby list if they don't have an appointment. If there are extra doses at the end of the day, ranging between 1 to 5. Eligible patients on the standby list are then contacted and may receive the dose if they are within a close range. Additionally the eligibility has been opened up for patients and employees to schedule walk in appointments to receive their dose.

Outcomes/Results: This program has been successful in vaccinating a large quantity of people in the given location and time period. The program has expanded to wider populations due to the capacity of the facility. When the program began, the clinic was initially prioritized to high risk MSK patients and frontline healthcare workers. Since then, criteria has broaden to patients who receive outpatient treatment at MSK. In recent weeks there has been a reduced volume of patients due to which may be an indicator that the target population for MSK has been successful in addition to vaccine availability in local pharmacies and communities.

Evaluation/Conclusion: While this program is ongoing so there will continue to be further evaluations, so far it has been successful. Over the course of these past few months, there have been improvements to maximize efficiency of the clinic in order to vaccinate as many people as possible and fight the COVID-19 pandemic. This includes managing the volume of patients in response to the number of nurses to ensure that patients aren't waiting extended periods of time and nurses aren't overburdened. Additionally, when supply is available, walk in appointments make the process easier for some patients and employees.

Title: Reducing Recidivism: An Analysis of Hospital-based Violence Intervention Programs

Name: Shane Meledathu

Preceptor: Diana Starace, Injury Prevention Program Coordinator

Agency: Robert Wood Johnson University Hospital

Purpose: To analyze successful hospital-based violence intervention programs (HVIPs) across the country and identify program qualities that can be adapted for the RWJUH HVIP.

Significance: In many cases of community violence involving traumatic injuries, there is a high chance of injury recidivism. For young adults alone, injury recidivism is around sixty percent (Kramer et al., 2017). The RWJUH HVIP works closely with eligible participants to help address injury recidivism in Middlesex County and surrounding communities. Since it is still new, there is much to be learned from established HVIPs operating in similar areas. The project aims to help identify effective measures and procedures used in other HVIPs for review and adaptation by the RWJUH HVIP.

Method/Approach: A comparative analysis was conducted of different HVIPs in the country on program-specific qualities such as referral processes. Programs located in nine states with city/town similarities that are members of the Health Alliance for Violence Intervention (HAVI) were contacted by email, phone, or both. Of the 18 programs that met these criteria, only four programs responded for participation, with one program refusing to participate. Data was collected through informal interviews with program directors, and data on recidivism and reinjury was collected from evaluations and reports.

Outcomes/Results: Each of the three programs has been active for at least ten years. For each program, the majority of participants (>50%) were either Black/African-American or Hispanic/Latino. Hospital buy-ins were different for each program, with one program originating through hospital staff members and the other two programs originating through community-based organizations that later secured a hospital buy-in within a few years after the programs' start. For 2018 and 2019, each program had a reinjury rate at or below 1%, with recidivism at less than 6% for clients of the three programs. All of the data collected, including interview notes, initial program search data, and program reports, have been compiled into an Excel sheet for further review by the RWJUH HVIP.

Evaluation/Conclusion: Based on the interviews with each program, collaboration with community partners and mental health support for program staff are contributing factors to the programs' successes. Conducting more program evaluations is a current interest for each program, seeing as some programs had a ten-year gap between evaluations. Client satisfaction surveys are more difficult to conduct, so it is recommended to assess patient satisfaction using the methods used by the evaluated programs, such as open communication between the program director and clients and frequent check-ins with clients. Limitations in this project involved finding contact information for the programs, gaining approval for an interview, and acquiring official reports from the programs. Additionally, the low participation rate suggests that it may be useful in the future to expand the analysis to states beyond those included in the study. As one program mentioned how recidivism and reinjury increased during the pandemic, it may be useful to acquire new information from the programs in the next year to evaluate any changes or increases.

Title: Effective Analysis of Community Outreach in Bergen County, NJ

Name: Madison Menkevich

Preceptors: Matthew Smith, New Jersey Director

Agency: Food & Water Watch

Purpose: To advocate for campaigns to stop new fossil fuel infrastructure projects, and to enact 100% renewable energy policies at the local level in New Jersey.

Significance: Air pollution has many negative impacts on both health and the environment. "The health effects of breathing polluted air include reduced lung function, asthma, cardiovascular disease, preterm birth, and premature death. Generally, older people are more susceptible to premature death due to air pollution while children are especially vulnerable to asthma and impaired lung function development. Air pollution, predominantly from burning fossil fuels, reduces worldwide average life expectancy by nearly three years" NYU Law (2021). Community Choice Aggregation allows for residents in a community to 'bulk buy' electricity from green sources at cheaper rates, making the transition to renewable energy affordable, and easy. Working with local communities and educating about the harms of fossil fuels is necessary so that New Jersey can begin a healthier future with 100% renewable energy policies, including the conversion to Community Choice Aggregation.

Method/Approach: Community outreach was completed by means of phone calls with numbers generated from voter registration, as well as Food and Water Watch members who lived in the area. Approximately 440 residents residing in Bergen County were contacted and yielded in one of the following results: 1) respondent, 2) voicemail, 3) unreachable. Of those who were considered unreachable, this includes: not home, wrong number, refused/hung up, call back, no answer, busy, bad number, moved, and those who requested to no longer be contacted, said they were not interested prior to hearing the reason for calling. Those who were respondent were further categorized into the following categories: 1) yes, 2) maybe, 3) no based off of their availability to join the virtual town hall.

Outcomes/Results: Of the 440 residents reached out to in Bergen County (n=440), 32 residents (7.3% of total dials) were respondent, 226 residents (51.4% of total dials) the call went to voicemail, and the remaining 132 residents (30% of total dials) were unreachable. Approximately 50 dials (11.3% of total dials), had no disposition selected when the call ended, making the results unclear due to human error. Of the 32 respondents, 8 residents (1.8% of total dials) said yes to attending, 12 residents (2.7% of total dials) said maybe to attending, and 12 residents (2.7% of total dials) said no to attending the town hall. The town hall resulted in a total of 85 total attendees, with two (2.3% of total attendees) respondents who answered 'yes' to attending, actually attending, and zero respondents who answered 'maybe' to attending, actually attending the town hall who were contacted via phone call.

Evaluation/Conclusion: Of those who were contacted (n=440) regarding the town hall, less than 1% (two residents, 0.45% of total dials) attended regardless of call disposition. Limitations of this project include: the dials with no marked disposition (n=50, 11.3%), and no follow up for the dials that lead to voicemail (n=226, 51.4%). Telephone outreach will serve as a little to non-effective method in community outreach for town hall invitations regarding CCA and fossil fuel dangers for Bergen County.

Title: Development of Point-of-Sale Virtual Surveillance Training Tool for Rutgers

Center for Tobacco Studies

Name: Karina Mercado

Preceptors: Chris Ackerman, MPH, Research Project Manager

Agency: The Rutgers Center for Tobacco Studies

Purpose: To increase intercoder reliability among data collectors by the development of a point-of-sale virtual surveillance tool for the Rutgers Center for Tobacco Studies (CTS), point of sale research study.

Significance: The tobacco industry is prohibited from indirectly/directly targeting youth while advertising their products following the Master Settlement Agreement in 1998. However, in 2019 the tobacco industry spent more than 6 billion dollars on product marketing and advertising at the point-of-sale. Collecting cross-sectional and longitudinal data characterizing the prevalence of tobacco advertisements and tobacco product availability in licensed tobacco retailers close to high school's aids researchers investigating factors that may contribute to tobacco use among students

Method/Approach: CTS data collectors capture the prevalence of exterior and interior advertisements, and product availability from licensed tobacco retailers within half a mile radius of high schools in New Jersey. Retailers in the study included: convenience and non-chain convenience stores, drug stores, dollar stores, liquor stores and gas kiosks. CTS defines an advertisement as an industry-made sign at least 3 by 5 inches featuring an image of the product or a company's logo. Data collectors catalogue the presence and prevalence of advertisements for: cigarettes, cigars/cigarillos, smokeless tobacco, electronic cigarettes and tobacco-free nicotine pouches. In addition, CTS catalogues whether the advertisements promote flavored products. CTS took into consideration that prospective data collectors may or may not be familiar with popular tobacco brands and their advertising. A training tool was developed to provide guidance on product knowledge in order to increase intercoder reliability in future cohorts. Due to the uncertainty of how COVID-19 will impact Rutgers University in-person data collection policy, a virtual experience was created to facilitate remote training using the Rutgers Qualtrics on-line survey platform. The point-of-sale virtual surveillance training tool combines survey questions and photos of tobacco advertising archived from previous data collection.

Outcomes/Results: Prospective CTS data collectors can access the virtual training tool remotely and learn at their own pace. CTS is currently seeking prospective data collectors for the 2021 point-of-sale study. Thus, intercoder reliability for the virtual surveillance training tool has yet to be determined.

Evaluation/Conclusion: The point-of-sale virtual surveillance tool may be beneficial to the point-of-sale research study because it is a living document that can be modified to reflect current and emerging tobacco marketing strategies. Further research is needed to assess how the virtual surveillance tool may impact intercoder reliability in future CTS point of sale studies.

Title: Chart Review Performance Assessment

Name: Nneka Moneme

Preceptors: Andrew Kolbasovsky, Chief Performance Officer

Agency: NYC Health + Hospitals

Purpose: To analyze chart reviews and diabetic eye exams and colorectal cancer screenings using F.I.T. Kits surveys at seventeen facilities within the health system throughout New York City.

Significance: At the end of every month, Healthfirst determines the overall quality rating (OQR) of each facility within the NYC Health + Hospitals health system on a scale of 1.0 5.0. Every facility has measures that count towards their overall quality rating based on performance within the measure. Each facility must pay a large penalty if the Medicaid overall quality rating is less than 2.0. If measures improve, this influences the overall quality rating making it also improve. An overall quality rating of less than 2.0 results in a loss of half of 2020 risk pool savings. Chart reviews are important because they help to improve the overall quality rating of each facility.

Method/Approach: Surveys were given to each hospital regarding colorectal cancer screenings using the F.I.T kits and diabetic eye exams to gather information about the efficiency of the process done at each facility. The survey consisted of six questions that described the need for referrals for diabetic patients that need an eye exam and five questions that asked about the process of patients receiving the kits to perform the colorectal screen and mailing them back.

Outcomes/Results: Out of the seventeen hospitals, sixteen facilities responded to the survey. A workgroup was created for both colorectal cancer screenings and diabetic eye exams. There were no two facilities that had the same process for each of the measures. There were facilities that did some things that others didn't. For example, at Elmhurst hospital, the health plans mail the kits to patients; however, at Bellevue hospital, they don't have the manpower to have a system where the kits can be mailed to patients. Eleven (64%) responded that diabetic patients need a referral for an eye exam, seven (41%) said that a diabetic patient can have an eye exam without an appointment. Patients can pick up their kits during their visit at eleven (64%) facilities and can drop the kit off at twelve (70%) facilities. Three (17%) hospitals have the health plans mail the kits to their patients, twelve (70%) facilities have to have an order placed in the EMR before mailing the kit to the patient.

Evaluation/Conclusion: The team used the information provided by the survey to get an idea of the facilities that would want to be a part of the workgroup. The purpose of the workgroup is to bring together facilities that are struggling or not as efficient in these areas with other facilities that have found success in their processes. Ten operational and administrative leaders agreed to be a part of the diabetic eye exam workgroup and thirteen leaders are on board for the colorectal cancer screenings workgroup.

Title: The Impact of Memorial Sloan Kettering's COVID-19 Initiative on Patients and Staff

Name: Maria Montalvo

Preceptors: Jenny Yuen, Assistant Manager, Outpatient Operations

Agency: Memorial Sloan Kettering Cancer Center - Manhattan, NY

Purpose: To demonstrate the efficiency of Memorial Sloan Kettering's COVID-19 initiative, which sets out to vaccinate and test all their patients and employees.

Significance: As of today, more than 32 million people in the United States have been infected with the coronavirus, with 540,000 of those infected succumbing to the disease (CDC, 2021). These figures only grow more alarming when examining those with underlying health conditions, specifically patients with cancer, who die of COVID-19 at three times the rate of non-cancer patients (Mapes, 2020). This tragedy has urged for the swift formation of three potentially life-saving serums: Pfizer and Moderna's two-shot and Johnson & Johnson's single-dose vaccinations. Memorial Sloan Kettering, as a trailblazing cancer institution, is taking the steps to ensure all of their patients and employees are fully immunized in order to circumvent any more loss caused by COVID-19. The MSK COVID-19 Clinic is making significant strides in the venture towards a fully inoculated nation through comprehensive vaccine distribution, test screenings, and a compassionate and enthusiastic atmosphere.

Method/Approach: To combat the confounding rates of COVID-19 infections in the United States, Memorial Sloan Kettering has implemented a comprehensive system of screenings and immunizations for eligible patients and staff within their New York locations. As a Care Coordinator in the David H. Koch building, I work in an assortment of positions, all operating in tandem to ensure the clinic runs as effectively as possible. While at the front desk, I check patients in and out of their set appointments and authenticate patient demographics. I certify all our data is precise and make sure to go over all compulsory COVID-19 questions and information with the patient. As a scheduler, I guarantee that all patients necessitating a second dosage are booked a convenient and appropriate appointment. As a clinic flow aid, I work in the vaccination suites, confirming patient info once more and guiding them to their assigned rooms with a nurse.

Outcomes/Results: The MSK COVID-19 Clinics have been operating since December 2020, overseeing stringent testing and later, endeavoring to vaccinate all patients and employees. Since I began in late February 2021, there were currents of 1000 visitors a day. Now, that number has lessened to about 200 appointments in a single working day.

Evaluation/Conclusion: Memorial Sloan Kettering's COVID-19 Clinics have worked diligently to confirm that those within their care and supervision are all properly tested and inoculated. The vaccine initiative has been exceedingly efficacious so far as we continue to vaccinate all staff, patients, and former patients of the cancer center. With the list dwindling down, much of the community has been vaccinated against COVID-19. MSK's immunization clinics are found within their New York locations, along with sustained plans to expand to their New Jersey sites as well. MSK has also taken steps to ensure accessibility of the vaccination to those farther away from the New York centers, with a new clinic opening in Harlem. COVID-19 has made it clear that health care remains extremely disparate and Memorial Sloan Kettering is working to address that inequity.

Title: Cannabis Use and Pregnancy

Name: Nicole Mora

Preceptors: Gloria A Bachmann, MD, MMS, Director, Women's Health Institute (WHI)

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

Purpose: To research and perform studies to better understand the effects cannabis has on women during pregnancy.

Significance: The use of cannabis during pregnancy poses a major threat to the health of the expecting mother and the fetus. As a result of the use, neurodevelopmental issues can occur and leave lasting health issues on the fetus. As states continue to legalize recreational use of marijuana, more studies have been done on both the short and long-term use of cannabis in pregnancy. Through extensive literature review and research, the potential and reported effects are discussed in this paper. This research project is part of an initiative led by the Women's Health Institute to advance the health of women.

Method/Approach: An extensive literature review was completed on the topic and the findings are summarized in this paper.

Outcomes/Results: There are many risks involved with using marijuana while pregnant. The effects include, but are not limited to preterm labor, low birth weight, admission to NICU, reduced attention and functioning skills, and behavioral problems in babies. As for the mother, it can impair their function and may lead to domestic issues within the household. Many of these women are reluctant or fail to complete treatment programs because of a lack of support and the methods used during the treatment.

Evaluation/Conclusion: As the nation continues to legalize the recreational use of cannabis, the number of pregnant users only increases. In the last decade, the number of pregnant users has doubled. Access to treatment is limited for these mothers because of gaps in knowledge of treatment, lack of a support system, and the criminalization of drug use during pregnancy in some states. These barriers amongst many others can all be resolved with more research and attention put towards this growing population.

Title: Improved Participant Tracking & Communication

Name: Maryam Muhammad

Preceptors: Direct Supervisor: Nadia Muhammad, Ph.D, Project Manager

Agency: "Your Immunity Project": Community-Based Clinical Trial

Purpose: To provide participants of the study and administrators an efficient and effective mode of communicating technical challenges in order to improve response time and efficiency.

Significance: There have been over 500,000 deaths recorded in the United States due to COVID-19. Vaccines have been created but there is hesitancy to accept the vaccinations. According to Verger and Dube, (2020) vaccine hesitancy is the refusal, delay, or doubts about the usefulness and safety of a vaccine and is declared 1 of the 10 important health threats by the World Health Organization. The 'Your Immunity Project' purpose is to provide evidence-based research to design a community-based clinical trial that will illustrate the safety and efficacy of Paximune as a treatment and prevention for the virus to serve as an alternative to a vaccine. A community-based clinical trial includes a large number of participants who must be accurately tracked through each phase of the design, implementation, and execution of the trial. A part of tracking is consolidating and cataloguing all technical issues that arise for participants in order to improve the efficiency of the programs being utilized and the time it takes administrators to respond. This project provides a tool for the trial to improve communication and response time.

Method/Approach: To date, there are 176 participants currently enrolled in the trial with more rolling admission. A review of the tracking spreadsheet was conducted to determine the time between participants completing the consent forms, downloading the mobile application for the trial, and completing the surveys and questionnaires and cross-referenced with the number of emails sent concerning all technical challenges that were occurring. To reduce the time between the completion of each phase and prioritize responses a messaging software was implemented and customized for effective service support.

Outcomes/Results: The messaging system serves as a customer support tool or in this case a participant support tool. Instead of using a traditional email inquiry and response strategy, participants can submit requests and concerns through an incorporated system that will feed all requests to one location. This is for administrators to view and track all requests from a single location making prioritization simpler, response quicker and improving the channels of communication.

Evaluation/Conclusion: Participants are able to use the messaging system, sending in requests and reporting technical difficulties that they are experiencing during the process of enrolling and participating in the trial. The method of using a single system to organize and follow-up with participants throughout the course of the trial, specifically during the initial phases of trial design and implementation has proven to be more effective than email communication between administrators and participants. As the community-based clinical trials continue and enter the following stages of implementation, the messaging system can still be used and/or modified as needed.

Title: Environmental Safety and Public Health Projects

Name: Jessica Mukhija

Preceptors: Matthew Smith, Jocelyn Sawyer, Sam DiFalco

Agency: Food and Water Watch of NJ

Purpose: To work on specific campaigns and issues that concern communities in NJ in regards to Public Health and safety of residents.

Significance: Convince Governor Murphy to agree to not permit new pipeline gas compressor stations and other fossil fuel infrastructure to be expanded in Wantage and other areas in NJ and communicate the concern of gas and fossil fuel emissions and what kinds of harm they bring to people in communities. The projects contribute to the situation as it will inform council members, advocates, and legislators to be involved in implementing laws, policies, and methods to help combat climate change. Other projects include contacting people to advocate for their municipal governments to adopt 100% renewable energy aggregation programs by 2030.

Method/Approach: Phone banking, email outreach, sending follow-up emails, attending town hall meetings, sending text messages, and updating the excel spreadsheet with contact information and data for projects are all ways the goals of Food and Water Watch are met. Communicating to people to get involved through signing petitions or attending zoom call meetings regarding various environmental issues is vital to help bring proper health and safety to the nation. Through phone-banking using Hubdialer, notes are written about the conversation that occurred to get a sense of what the other person thinks about the specific issues, and from there it is understood whether they will support the cause or not. Emailing also allows information to be sent out to people in which they will read and make a decision on their own rather than straight away on a phone call. Finally, updating the excel spreadsheet is a good way to store all the information for people to contact which is beneficial for the understanding of long-term progress. Keeping track of overburdened communities is an example of one form of data that was put in excel to understand how close gas pipelines were to their areas of residence.

Outcomes/Results: Although there are people who aren't interested in the campaign, busy when called, or don't respond back, most people are aware of the issues and explain what they feel personally are problems in their towns in which action needs to be taken. There are 17 towns that signed up to ban fracking so far out of the various towns that have been contacted from North, Central, and South Jersey. There were many people who agreed to call their town council to convince them to oppose the Gibbstown Terminal Expansion project as well as fracking either through email or phone banking which has brought good results for the campaign. There are also many who don't reply to emails but there are still many who do. There were also many people who signed petitions to support causes FWW is something that shows how concerned people in NJ are about climate change issues.

Evaluation/Conclusion: The majority of people contacted have supported the various issues that we work on in Food and Water Watch, and I have personally gotten feedback from people through phone-banking where even if they may not agree with the campaign issue, they give good feedback on the work that is being done by praising it. There are many people who support the issue and contacted their town councils regarding the issue in which a resolution was passed, bringing changes for climate change.

Title: Veterinary Telemedicine Effectiveness and Usage Assessment

Name: Sarah Mustaqali

Preceptors: Ana Maciel, Supervisor

Agency: Sabii Digital - New York City, New York

Purpose: To analyze factors affecting continued use of a telemedicine app for veterinary clinics in order to implement a plan for improved engagement and service.

Significance: In the year 2011, 204.4 million veterinary visits occurred across America. Despite this, pet owners continue to seek easier and more frequent communication with veterinary clinics, with a survey by Kogan et al. (2016) reporting that of 1,031 pet owners with pets who have experienced long surgeries, 38% expressed that they desired text message updates over traditional phone updates. Sabii Digital, a consulting company, aims to achieve better health outcomes for pets and their owners by assisting clinics in their use of a telemedicine application to improve communication between clinics and clients. By analyzing and overcoming factors inhibiting veterinary clinics from adopting telemedicine, this project aims to improve the retention rate of clinics using telemedicine.

Method/Approach: To conduct a study of factors hindering veterinary clinics from using telemedicine long-term, data was collected through records on Salesforce, the software used by the company to manage client data and records. Data for all clinics that deactivated their telemedicine application account in the year of 2020 was selected and exported to Excel. Qualitative categories determining reasons for deactivation were assigned for each clinic. These categories included issues with the features of the app, loss to competitors, marketing campaign issues, feeling overwhelmed, technical issues, lack of need for telemedicine, and non-response, and other reasons. The categories were selected to encompass the varied reasons for deactivation, while providing clear distinctions between different issues to be addressed. Using Excel, the data was compiled into a chart listing the frequency of different deactivation reasons, days spent enrolled, and success of launch before deactivation, in order to determine the most prevalent barriers to long-term adoption of telemedicine.

Outcomes/Results: Of the 176 deactivation requests documented through the year of 2020, a total of 42 veterinary clinics, or around 23.86% of total requests cited a competing service as the reason. Out of all of these clinics, 28.57% had successfully launched the app to their clients before deactivation. On average, these clinics spent 99.74 days enrolled in the program. The second highest category was lack of need for telemedicine, comprised of 35 requests, or 19.89% of total requests. Of the clinics in this category, 25.71% launched before deactivation. The average time spent enrolled in the program before deactivation for this category was 111.71 days. Overall, only 38.47% of deactivated clinics successfully launched.

Evaluation/Conclusion: Around half of clinics studied fell into one of two categories for deactivation: switching to competing services, and lacking a need for telemedicine. Because of this, increased education on the benefits of telemedicine may be needed to achieve higher rates of continuation.

In addition, continuing to improve features of telemedicine applications can incentivize veterinary clinics to stay with this app in lieu of competing services. As many of these clinics did not launch, offering greater support in the form of training, and incentives to launch may be helpful in allowing clinics to gain experience with telemedicine and understand its benefits.

Title: Trauma assessments for Rutgers students

Name: Maymunah Nageeb

Preceptors: Marjolein Zijdel, Peer Education Coordinator

Agency: Violence Prevention Victim Assistance

Purpose: To compile a list of free trauma assessments and gather research for men's mental health for Rutgers students for VPVA's use

Significance: "I think part of it may be this macho thing," Dr. Raymond Hobbs, a physician consultant at Blue Cross Blue Shield of Michigan, told Healthline. "A lot of guys don't want to admit they have this problem. They still see depression as a sign of weakness." Toxic masculinity serves as a big barrier for men not reaching out for help. Moreover, mental health is a big problem for both men and women who lack the means for therapy and being able to provide an accurate diagnosis for themselves. This is where trauma assessments bridges the gap and research on how to address mental health in men and provide support is important.

Method/Approach:

- Searched up free trauma assessments
- Compiled from various websites
- Used excel sheet to organize each assessment
- Searched up men and mental health
- Gathered research from many websites
- Made a google doc to compile information

Outcomes/Results: Men with masculine traits are likely to have decreased health as it ties with toxic masculinity. have decreased mental health — and are even less likely to reach out for help, according to a 2017 study. Researchers found that this was related to certain specific, stereotypically masculine traits. For example, men who valued self-reliance were more prone to suffer poor mental health, likely because they had difficulty seeking support. Men who valued having power over women also suffered worse mental health (showing any doubters that feminism is good for men, after all). This tendency to be stoic about suffering not only impacts men's mental health — it also prevents men from getting physical healthcare as well.

Evaluation/Conclusion: Assessments and educational outreach will help in the diagnosis of treating mental health disorders in men while bringing attention to this unspoken matter. Men with stereotypical masculine traits have decreased health and suffer poor mental health. Research will provide insight into why men do not seek help. That research will be used to find solutions that will show men there are people who care and resources available.

Title: Health Innovations Internship

Name: Nataliya Najmi

Preceptors: Renata Svincicka

Agency: The Family Resource Network

Purpose: To develop the foundation of the planning committee to launch the National Caregivers Conference 2022 (NCC 2022), which aims to bring together unpaid family caregivers and professional caregivers from different regions to address healthcare issues faced by our communities.

Significance: The National Caregiver Conference is a national conference celebrated for its nationally renowned speakers, forums, and exhibitors that discuss both individual and national topics that affect the caregiver community. Each year's conference revolves around a theme that is relevant to the community. Next year's conference will be focusing on the COVID-19 pandemic and its impact on caregivers and families. The COVID-19 pandemic has had a devastating effect all over the world. It has forced the world to change its long-held traditions and continue to impact our lives beyond the immediate crisis. It rapidly changed lifestyles, businesses and disturbed world trade and movement. Many people suffered from the loss of loved ones and went through depression and anxiety. The caregivers have played a significant role in the healthcare system during this pandemic, as many of the in-patient and out-patient medical services were compromised in order to meet the demands of caring for COVID-19 patients.

Method/Approach: The first part of the planning process was to decide the theme of the conference. After brainstorming the potential themes, the planning committee chose to address the impact of the COVID-19 pandemic and how it has affected the lives of the caregivers to acknowledge and appreciate the Caregivers. Next, the planning committee researched keynote speakers for the conference. The goal was to consider caregivers who were renowned because of their accomplishments in the caregivers' community. Considering the COVID-19 precautions, it was decided to make the conference a hybrid event: in-person with a virtual component. Pharmaceutical companies, Private practices, NJ Chamber of Commerce, local and national level for-profit and nonprofit organizations, Insurance companies, and Hospitals/Medical companies were identified in order to secure sponsorships.

Outcomes/Results: The NCC 2022 is intended to educate and provide tools and resources to the caregiver community. The primary goal of the conference is to create a space for caregivers, healthcare providers, healthcare advocates, and families to connect, learn and collaborate. This is the first time that the National Caregiver Conference is taking place outside of the state. This will allow people from all over the states to join and bring their unique ideas and opinions to the table to address the issues caused by the COVID-19 pandemic and provide resources for the families to easily adapt to the changes.

Evaluation/Conclusion: In terms of evaluation, an entire team is dedicated to making a post-event survey, which will be provided to the attendees to share their feedback. The feedback will reflect their thoughts about the conference and allow the planning committee to improve and meet the expectations of our audience.

Title: Health Disparities within Colon Cancer in New Jersey

Name: Insiya Neemuchwala

Preceptors: Direct Supervisor: Christina Laird, Administrative Director Cancer Operation Services;

Project Supervisor: Meghan Kaumaya M.D., Oncologist

Agency: Englewood Health

Purpose: To analyze health disparities that may exist in colon cancer patients including primary site, age, race, marital status, county, and presence of a primary care physician that may serve as barriers toward colon cancer screenings in Englewood Health's patient population and propose interventions to increase early screening for colon cancer.

Significance: Colorectal cancer is the second leading cancer death in the U.S. in men and women (CDC, 2019). In New Jersey, the cancer incidence rate and CRC's death rate are the fourth most common in men and women (American Cancer Society, 2018). This study will focus on factors such as primary site, age, race, marital status, presence of insurance, county, and presence of a primary care physician and assess whether any of these demographic factors influenced whether patients were properly screened for cancer.

Method/Approach: Patients with colon cancer diagnosed between the years of 2017 to 2019 were identified from the EH Cancer Registry. Charts were reviewed via online medical records, and from this, 330 patients were diagnosed in New Jersey. Patients were then coded into various categories based on relevant information for analysis. After this, patients were further divided into whether the patient had presented with symptoms and were subsequently diagnosed with colon cancer or whether they were diagnosed based on routine colon cancer screening. A statistical test was done with each category and compared with whether they had presented with symptoms or found on routine screening to identify any significance.

Outcomes/Results: Out of the 330 patients with colon cancer, there were more patients that were found with cancer through symptoms than screening (77% versus 23%). When comparing race, those classified as Hispanics had a higher percentage for symptoms (83.7% versus 16.3%) followed by Other (84.2% versus 15.8%). For age, there was a higher number of patients who were diagnosed through symptoms than screening for those less than 40 and age 40 to 51 (< 40: 90.0% versus 10.0%; 41-50: 78.8% versus 21.2%). For the primary site, descending colon/sigmoid/rectosigmoid had a higher percentage in symptoms (81.6% versus 18.4%) followed by ascending colon/cecum (76.8% versus 23.2%). For insurance, those diagnosed through symptoms had a higher percentage than those who were screened (insurance: 77.2% versus 22.8%; no insurance: 76.9% versus 23.1%). By county, there was a higher percentage of those diagnosed through symptoms than through routine screening in Bergen county (75% versus 25%) followed by Passaic (81.8% versus 18.2%). For patients with and without a PCP, those diagnosed through symptoms had a higher percentage of having a PCP (PCP: 77.1% versus 22.9%; no PCP: 78.4% versus 21.6%).

Evaluation/Conclusion: Overall, it can be concluded that most patients are diagnosed through symptoms for colon cancer. By race, the highest proportion of patients diagnosed through symptoms are Hispanics and Other. Additionally, there was a higher proportion of patients diagnosed through symptoms for CRC in the age ranges of less than 40, 71-80, and 81 and older. Furthermore, patients with or without insurance have a high proportion of being diagnosed through symptoms. Thus, from this study it can be concluded that people need to be informed about the importance of early testing to reduce the incidence rate.

Title: Virtual AACR Congress 101: The Benefits and Challenges

Name: Saloni Nemade

Preceptors: Direct Supervisor: Michaela Castillo, Group Account Supervisor

Agency: BGB Group

Purpose: To conduct a competitive analysis of abstracts set forth during the American Association for Cancer Research (AACR) Annual Meeting and understand the challenges and benefits to running a virtual medical congress.

Significance: Cancer is the second leading cause of death in the United States (CDC, 2020). The American Association for Cancer Research (AACR) is a 501c3 nonprofit organization that provides research, education, communication, collaboration, funding, and advocacy to prevent and treat cancer. BGB Group works as a medical communications agency that partners with pharmaceutical companies like Bristol-Myers Squibb (BMS) to strategically promote drug therapies presented at medical congresses. The AACR Annual Meeting will begin its first week in April, which focuses on major symposia and advances in interest therapies.

Method/Approach: To provide adequate coverage of the AACR congress, BGB partners with Bristol-Myers Squibb to create a series of decks and grids which organize abstracts by priority. This involves working across teams of Account, Med, and Project Management. A kickoff deck is created for an introductory overview of key release dates. Then, an internal planning shell is created to align with the client's interest in specific abstracts. Finally, an abstract grid is created with the specific prioritization of abstracts to develop a well-rounded coverage plan for sending all high priority, medium priority, and low priority abstracts to BMS.

Outcomes/Results: By providing all of the key planning documents such as kickoff decks, planning decks, abstract grids, and full coverage plans, BGB Group successfully completed a robust coverage of the AACR congress to Bristol-Myers Squibb by the turnaround time. With the information provided by BGB Group, BMS is fully equipped with the latest competitor data that is relevant to thoracic oncology. This can allow BMS to apply research to drugs they manufacture.

Evaluation/Conclusion: Given the current circumstances, virtual medical congresses will likely continue throughout 2021. The new format of virtual medical congresses has proved both beneficial and challenging to the BGB team. Some benefits of having virtual congress coverage are the ease of extracting abstract and presentation materials all located on one website; this was a positive change from the in-person conferences that required the team to travel and rush through various auditoriums specific presentations in tight time constraints. However, technological challenges with Zoom caused difficulties with viewing oral presentations. By implementing best practices for improving efficiency and better technology requirements, the team can be better prepared for providing information to their clients and partners.

Title: Hospice Care Assessment During COVID-19 Pandemic

Name: Juana Nguyen

Preceptors: Director of Volunteer Services, Terry Hudak

Agency: Hospice of New Jersey

Purpose: To analyze the experience of hospice staff, volunteers, and patients during the COVID-19 pandemic and establish policies and protocols to protect all parties.

Significance: Approximately 380,000 people died from the coronavirus pandemic in 2020 in the United States (CDC, 2021). Palliative and hospice patients are the most vulnerable population to the COVID-19 virus due to their deteriorative health status. The coronavirus implications and repercussions forge new complications for hospice and palliative care facilities and nursing homes, like the limitation of staff or family members allowed for visitation and the early shortage of PPE and medication (McCarthy, 2022). Hospice of New Jersey is combating the need by offering full PPE to clinical teams, phone calls for video-conferencing, telehealth, and are taking electronic signatures to eliminate in-person consultations (Hospice of NJ, 2020). This brings light to protocols that should be implemented to ensure enough supplies and IT equipment to sustain the influx of technology utilized during this time.

Method/Approach: Research was conducted on hospice and long-term care facilities to gather background knowledge regarding the pandemic's difficulties on their work and their patients. Interviews were done on all parties, which included the patients, volunteers, and the nurses on-site. Volunteers were asked about how this position differed from other onboarding experiences due to COVID-19. Nurses were questioned about the adaptation for consistent rapid testing and additional precautions that had to be implemented for safety. Lastly, patients were assessed on how the pandemic impacted their care. In addition to the interviews, background research was gathered from online sources for general statistics for comparison.

Outcomes/Results: Data collected since March 31st showed that of all deaths involving COVID-19: approximately 15,300 deaths were in a hospice facility, and almost 106,000 were in a nursing home or long-term care facility (CDC, 2021). Information from staff concluded most were not prepared for a pandemic, nor had enough supplies to sustain protective and quarantine measures (McCarthy, 2020). Volunteers were required to receive medical clearance in order to be on-site, caretakers had to test negative for COVID-19 each time they visited a patient, and patients had limited access to visitors to reduce exposure. Hospice of New Jersey previously had a stockpile of personal protective equipment, including masks, face shields, hand sanitizer, shoe coverings, gloves, and gowns. As a result, the facility could handle COVID-19 measures effectively and efficiently. Furthermore, the organization implemented telehealth to avoid in-person visits and reduce exposure when necessary. To add, since medical staff attending to their patients have to get tested each visit, having a nurse onsite at all times is essential to clear the practitioner.

Evaluation/Conclusion: This assessment showed facilities like Hospice of New Jersey that prepared early excelled in the pandemic compared to unprepared counterparts. To elaborate, those who have already transitioned to telehealth as alternative consultations from in-person visits were ahead of those who lacked the technology. In addition, Hospice of New Jersey had a surplus of personal protective equipment prior and continued to restock to prevent depletion. This allowed employees to continue their work and provide care to their patients who needed assistance, whether virtually or physically.

Title: New Jersey Fossil Fuel Assessment on Health and Safety

Name: Gabriella Nguyen

Preceptors: Direct Supervisor: Matthew Smith, NJ Director

Agency: Food & Water Watch - New Jersey

Purpose: To analyze the health and safety effects of fossil fuel projects and propose different energy methods to prevent. There are many New Jersey gas pipeline projects that threaten the public health of Northern Jersey residents, and communities need to be informed this

Significance: Natural gas leaks are the cause of serious, long-term conditions. Leaks potentially release carbon monoxide, which can reduce oxygen intake, facilitate asthma, and lung cancer. According to the Pipeline and Hazardous Materials Safety Administration, the Tennessee Gas Pipeline Company has been responsible for about 110 incidents with their pipelines from 2006 and 2017. This project will help inform the public on the dangers of these New Jersey fossil fuel pipelines and to address possible ways to transition to cleaner energy sources.

Method/Approach: Food & Water Watch is responsible for keeping New Jersians updated on many environmental issues within the state. The organization participates in lobbying and educating residents across target cities/counties, typically along pipeline construction sites, on the negative effects of natural gas and fracking. At fossil fuel proposals, Food & Water Watch members are expected to understand the primary locations that would be affected by these construction projects or transport, as well as what is at stake if these proposals pass. After research, members then conduct community outreach for petitions, attendance to forums, and/or opposition against local government support for these fossil fuel companies. The organization's most important responsibility is to inform the public of the dangers and long term consequences of gas pipelines.

Outcomes/Results: Work at Food & Water Watch ultimately results in contributing to multiple environmental causes, especially the abolition of gas pipelines and advocacy of clean energy. The organization has gathered more than 30 signatures from New Jersey elected officials to urge President Biden against fracking, as well as over 50 community residents to attend Food & Water Watch meetings on fossil fuel issues. Organization members and fellow interns have spread awareness on the Tennessee Gas Pipeline Company through phone/text/email outreach (to at least over 200 residents). While as an intern, the contribution is not immediately impactful, educating the public increases the likelihood of the US shifting to clean energy and reducing the health risks from fossil fuel pipelines.

Evaluation/Conclusion: Evaluation will be determined by greater support from New Jerseyan residents and local government officials. As stated before, contributions may not result in immediate victories, but the organization can gauge its success through larger amounts of petition signatures, local government laws, etc. Through phone banking surveys, Food & Water Watch can gather data on the amount of RSVPs from new community members on varying fossil fuel topics or signatures, which helps determine success on the project. Since the organization focuses on multiple projects, environmental proposals, etc., projects need to be relooked at to compare community support and overall success. Another measure of success is whether future TN Gas Pipeline projects/expansions are prevented or stopped.

Title: Review of panel physician consultation inquiries to tuberculosis Centers of Excellence from 2018 to

2020

Name: Michaela Novo

Preceptors: Rajita Bhavaraju, Deputy Director

Agency: Global Tuberculosis Institute

Purpose: To establish a study to identify gaps in knowledge of LTBI and TB disease management that exist among panel physicians by analyzing consultation inquiries to the TB COEs, from 2018 to 2020.

Significance: TB remains as one of the greatest threats to health around the world, as it is one of the leading infectious disease killers. As mentioned in the scope of work for the TB Centers of Excellence, "For over a decade, the Centers for Disease Control and Prevention have funded regional COEs that focus on improving TB clinical care and knowledge through communication, educational activities, and medical consultation" (2018). Also, as part of their funded mandate, the TB COEs provide physicians, nurses, and other medical professionals expert advice on screening, evaluation, diagnosis and treatment of TB patients. Panel physicians are crucial to both stopping the spread of TB worldwide and treating those with TB infection. Because of this, it is important to analyze the data from their consultations to find trends in data, and to look deeper into the type of care needed for TB patients immigrating to the US. This is to ultimately stop the spread of TB infection.

Method/Approach: In order to submit an IRB application, copious amounts of research on TB in general, drug-resistance, TB contact tracing, and TB epidemiology was done. In order to complete this research, journal articles were read, also the CDC website including current data on TB trends throughout the world was analyzed. Along with the background research on TB itself, research was done on the work that panel physicians currently do, and their role in the treatment of TB was discussed. Online seminars on TB were attended in order to gain insight into TB on different levels, from personal experiences of those who have had the disease, to how the disease is currently treated in NYC, and how contact tracing around the globe is done for TB. The protocol was completed for the IRB along with other supporting documents. In order to prepare for the IRB application, data previously collected from the Panel Physicians was analyzed.

Outcomes/Results: The current state of the research project remains in the phase of waiting for human subjects review. However, this process has resulted in copious amounts of research on TB, and the final product of a finished IRB application.

Evaluation/Conclusion: Although the data analysis has not yet been able to occur, the process of filling out an IRB application has been achieved. This process takes prior research, peer-feedback, and a long editing process. It has been agreed upon by many at the Centers of Excellence, CDC's Divisions of TB Elimination and Global Migration and Quarantine that an exploration of this data is beneficial as a whole. Finding trends in cases of TB, treatment, or other aspects of care that the panel physicians provide is important in helping stop the spread of TB worldwide.

Title: Value Stream Mapping of Patient and Information Flows

Name: Kayla Nugent

Preceptors: Jon Guarino, Physical/Occupational Therapy Supervisor

Juliana Fanning, Director of Neurosciences

Agency: Summit Medical Group

Purpose: To modify and improve patient and workflow processes and augment efficacy in therapeutic sessions.

Significance: In Summit Medical Group Occupational and Physical Therapy Department, the office takes in approximately 120 patients per day. Within the office, there are 13 providers, with patients coming in and out of therapeutic sessions. COVID-19 has made patient safety and efficient patient flow of utmost importance. The goal of the Summit Medical Group OT/PT department is to ensure that patients have the most seamless, effective treatments possible. Additionally, it is important to maintain social distancing, six feet apart, within the practice to ensure safety of all patients (*Social Distancing*, 2020). In a relatively small space with so many providers, it appeared to be difficult to maintain distancing while providing top quality care and time for each patient. A process analysis was necessary to determine which aspects of the patient flow causes wait times, identify wasteful processes, and to make improvements.

Method/Approach: The LEAN mapping strategy was used to evaluate patient flows and identify areas in which efficiency can be improved. The LEAN mapping model is a process mapping model that identifies information and material flow. Within the office, the many moving parts that contribute to the intake and treatment of patients were identified. The staff was divided into three categories: non-clinical check-in, PT aides, and providers. These three teams processed patients through four check-points: check-in, intake, treatment, and check-out. All three teams to gather, on average, it takes for them to complete each step. Staff members were questioned on weak points they may have observed during patient flows. On top of the material patient flow, the flow of information was documented.

Outcomes/Results: The LEAN mapping strategy was effective in breaking down workflows for each team member. It found that most wait time for patients was during times of high patient turnover, where there are back-ups for beds. The busiest times, the time slots from 9-11 AM, resulted in the longest waiting times for patients. As a result, staff was able to make adjustments in scheduling and work distribution. Additionally, flaws in information flow were observed, and intake channels were noted However, the transfer of information between teams is flawed, inconsistent, and leaves room for mistakes. Going forward, the teams will use strictly Athena messaging, the health administration software used in office, to convey information to each other.

Evaluation/Conclusion: The project proposes a suggestion to staff on how to increase efficacy and streamline patient flows. Additionally, it proposes a new staffing scheduling model to adjust to the increase in patient flow increase at peak times. Finally, the project mapped information streams and suggests streamlined forms to better information flow by using consistent methods of information passing by teammates. Although the improvements were not able to be tracked in the time allotted for the project, it is expected to improve productivity within the office.

Title: Healthcare Transformation Consortium Leakage Prevention

Name: Deirdre O'Loughlin

Preceptors: Stacey Knowles, Director of Managed Care

Agency: Saint Peter's Healthcare System

Purpose: To reduce the incidence of leakage and costs associated with leakage to out-of-network providers in the Healthcare Transformation Consortium insurance plan.

Significance: According to the Kaiser Family Foundation, the average employer contribution to an employer-sponsored family health insurance plan was \$14,561 in 2019, and the average worker contribution was \$6,015. These numbers are only increasing and the trend is unsustainable. The Healthcare Transformation Consortium (HTC) seeks to disrupt this trend by leveraging purchasing power of several top-tier New Jersey hospitals in the purchase of employee health benefits. "Leakage" in the context of the HTC is the use by plan beneficiaries of out-of-network or low benefit tier providers. The leakage prevention project seeks to improve the health insurance product offered to employees by closing gaps in coverage, steering beneficiaries to local high-quality health care, and lowering costs for the employer and employees.

Method/Approach: Research was conducted on reports compiled by the third-party administrator (Aetna) for the HTC. High-leakage specialties that were identified are plastic surgery, dialysis care, and behavioral health care. Meetings were held with representatives from each hospital system within the HTC to better understand their needs and issues. A fourth focus area of durable medical equipment (DME) was established from these meetings. Individual out-of-network providers with highest number of claims submitted and highest amounts of money billed were identified. Each hospital system lent guidance on how best to proceed with the identified providers. These providers were contacted with the goal of establishing a contract with the HTC to enter into a higher benefit tier of the network and offer their services at a lower cost for patients and the employers.

Outcomes/Results: Of the four specialties addressed, the most progress was made with behavioral healthcare providers. A relationship was established with a large behavioral health care provider that should result in a contract bringing the providers into the highest benefit tier of the HTC network. The length of the contracting process is unfortunately beyond the scope of this internship. However, given that these providers will be moving from out-of-network to in-network, savings can be inferred using existing data. In 2020, the HTC paid an average of \$277 per out-of-network outpatient behavioral health claim, and \$214 per in-network outpatient behavioral health claim. This reflects a savings of 22.7%. Contact has also been established with the three other specialty areas to start this process.

Evaluation/Conclusion: This project focused on researching and reducing the costs of receiving healthcare with employer-sponsored health insurance through the HTC. However, due to the length of the third-party administrator report generation process once claims are submitted, the true effects of the project will not be measurable for a few more months. Once contracts are in place with the providers to offer services at a lower rate, these savings will be reflected in quarterly reporting from the third-party administrator. Therefore, this project must be revisited on a quarterly basis to evaluate if it has been impactful in reducing the high out-of-network costs for beneficiaries and the employers.

Title: Revenue Cycle Management with RWJ

Name: Precious Odigie

Preceptors: Bryan Knode, Regional Director

Agency: Robert Wood Johnson Barnabas- Rutgers Medical Group

Purpose: To maintain a good financial standing and also improve patient outcome.

Significance: When an integrated billing and coding system is employed, care providers can achieve higher rates of clean (error-free) claims and fewer past-due patient payments, resulting in higher revenue and profits. They can also lower expenses through automation of billing tasks. About 90% of claim denials are preventable, and effective prevention of claim denial can result in more than \$5 million in additional revenue for an average hospital, according to Becker's Hospital Review. In addition to reduced claim denials and payment delays, RCM tools can be used to generate reports that provide detailed insight into an organization's finances and performance indicators. (Health informatics 2020) Revenue Cycle Management is important to healthcare organizations in order to track patient care.

Method/Approach: A detailed revenue cycle assessment was completed to prevent claim denials and ensure regular reimbursement for services provided between February 19th to February 26th. The process review included the initial registration and ended with insurance and follow-up. Areas that need improvement were noted, including ways staff can improve their relationship with patients.

Outcomes/Results: Of the 300 patients who came in during this assessment period, 30% were Medicare patients which is difficult to get reimbursed for services rendered, 20% had private insurance and 30% of patients were uninsured. For the 30% of patients who were uninsured, they were recorded amongst our losses. Twenty percent presented fake IDs or inaccurate information which contributed to more losses.

Evaluation/Conclusion: With this data generated through the assessment cycle, records and billing system collection has improved. Providers can now recognize trends in patient populations and identify areas of need. Through improved tracking and reporting of patient satisfaction and cost control measures, providers are eligible for top reimbursement rates from insurers.

Title: Evaluating Hormonal Fluctuations That Contribute to Postpartum Depression

Name: Mudia Ogbevire

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

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

Purpose: To conduct a literature review evaluating hormonal fluctuations that contribute to the onset of postpartum depression.

Significance: Fifty to seventy-five percent of mothers experience a negative shift in their mood and emotions after delivery. This temporary shift in emotions is commonly referred to as the "baby blues." However, fifteen percent of these mothers can experience a much more severe and long-lasting depression known as postpartum depression. Women with postpartum depression typically experience mood swings, frequent crying, fatigue, guilt, anxiety and difficulties caring for the baby. Mothers who suffer from postpartum depression often blame themselves and express guilt for not feeling joyous after giving birth to their child (CDC, 2020). However, these mothers may be unaware of the complex physiological effects that pregnancy has on their body. Research indicates that fluctuating hormones after pregnancy can be a contributing causal factor to the onset of postpartum depression (NIH, 2015). With this review, more interventions can be proposed to manage postpartum depression and expecting mothers can be made aware of the hormonal factors that may impact their mental state postpartum.

Method/Approach: A literature review was conducted to examine the role of hormonal fluctuations in postpartum depression. PubMed was the first database searched with the key words "pregnancy depression and hormones." Three studies were relevant. Google Scholar was the second database searched with the key words "postpartum depression and hormones." This search provided four relevant studies. Academic Search Premier and JSTOR were both searched with the key words "pregnancy depression and hormonal fluctuations" which resulted in five usable studies.

Outcomes/Results: Six studies found that the onset of postpartum depression coincides with the rapid changes in estradiol, estrogen and progesterone levels that occur at delivery. Four of these studies recognized fluctuations in reproductive hormones as a stressor for postpartum depression in vulnerable women. Two studies suggested that postpartum disorder stems from an abnormal neural response to the typical perinatal fluctuations in reproductive hormones. Two studies examined the existence of a hormone-sensitive postpartum depression phenotype. One study found that lower levels of the hormone allopregnanolone in the second trimester of pregnancy were associated with an increased likelihood of developing postpartum depression in vulnerable women. Further, three studies found that reproductive hormones control biological systems seen in major depression, which demonstrates that hormones may directly determine a woman's risk for postpartum disorder.

Evaluation/Conclusion: All studies indicated that dramatic changes in reproductive hormones at delivery play a significant role in the onset of postpartum depression. However, several studies suggest that some women may be more sensitive to these hormonal changes than others -- causing them to be at a greater risk for postpartum depression. Further research is needed to examine the causes of the heightened susceptibility to postpartum depression in at-risk women.

Title: Identifying the Importance of Community-Based Partnerships in Hudson County, New Jersey

Name: Lauryn Onkendi

Preceptors: Steven Campos, Community Resource Director, Hudson Partnership CMO

Agency: Community Networking Association of Hudson County, New Jersey

Purpose: To conduct online interviews of organizations in the Community Networking Association partnership on the purpose and need for community-based partnerships in the Hudson County population.

Significance: Oftentimes, there are many resources available within the community, yet if one is unaware of these resources, they often go without. "Almost 40 percent of Americans struggle to pay for basic necessities like housing and food" (Lardieri, 2018). The Community Networking Association strives to connect community leaders and community members to obtain or share the appropriate resources for those in need. However, during any implementation of a program or organization, it is important to identify whether the cause yields actual results within the community. Essentially, are these community networking initiatives effective?

Method/Approach: With any community initiative, it can be found that people who were initially interested in the cause have lost interest, or people who represented one organization have moved to another or changed their profession altogether. To maintain the most updated information, an email survey was sent to all members of the Community Networking Association of Hudson County membership list. This survey included options to remove themselves from the group or to update any information such as their email address, workplace address, name, and sector of employment. After finalizing and updating the list, it became possible to email selected members with a request to be interviewed on the importance of community-based partnerships. These interviews were to hear from actual community leaders on their perceived benefits (or shortcomings) of organizations such as the Community Networking Association and whether these organizations are pivotal in urban communities.

Outcomes/Results: After collaborating with another intern from the same organization and conducting some interviews, the consensus was that community leaders and members both benefit greatly from community-based partnerships such as the one that is facilitated by the Community Networking Association of Hudson County. Although the first-hand account from community members was not heard, community leaders spoke on the fact that members who they have assisted would often thank them for connecting them to the accurate and adequate resources and pointing them to the most relevant information. Community leaders benefit from being able to help those in their communities promptly, as some requests, particularly those regarding domestic violence and potential homelessness are particularly pressing.

Evaluation/Conclusion: These interviews bring to light the importance of community-based partnerships, especially in urban communities. During COVID-19, many people were left without resources due to unemployment and health issues with no one to turn to due to the lockdown. Members of the community who needed assistance were able to directly reach leaders within the Community Networking Association, who would then send the member's request through the network group. Communities with high rates of unemployment, poverty, domestic violence, and the like would greatly benefit from the implementation of a similar networking system. Perhaps, the Community Networking Association could be used as a model for the implementation of similar programs in other areas.

Title: Pharmacy Intern

Name: Dasia Orr

Preceptors: Director Erica Reyes

Agency: Walgreens

Purpose: To expand the patients receiving COVID-19 vaccines using safe administrations, and accurately input their information within the database.

Significance: COVID-19 is a global pandemic that many public/global health officials have been working to combat. With the help of many agencies and companies, we have been able to fight off the fears and uncertainties that come along with this virus both short and long term. Walgreens has been able to administer vaccines and tests which calms the nerves of many patients, allowing them to live freely knowing they have a higher chance of not catching the virus. In fact, Walgreens has provided 3 million COVID-19 vaccinations thus far (Walgreens Newsroom, 2021). Unfortunately, it is known that people from some racial and ethnic minority groups are more likely to be uninsured than non-Hispanic whites (Department of Health, 2020), however, so far all patients have successfully received their free vaccinations.

Method/Approach: As the need for COVID-19 vaccines have increased, so did the patients and amount of supplies. In fact, Walgreens recently announced how it has been rolling out of COVID-19 vaccines in the majority of its stores (49 within the United States, Washington, D.C., and Puerto Rico). Walgreens pharmacist and teams have been working to provide patients the vaccine at no cost and as safe and accurately as possible. Towards the beginning of March, the Pfizer vaccine was introduced to the store, but patients were only able to schedule appointments (using the online app) between Friday and Sunday with only 20 patients allowed a day. As the demand for vaccinations grew, Walgreens opened up vaccination appointments throughout the week, as President Biden began to double the amount of vaccines all Walgreens and CVS pharmacies received daily.

Outcomes/Results: As of April 12th, Walgreens as a whole administered more than 11 million shots throughout the nation (Newsroom, 2021). Offering the vaccine only between Friday through Sunday (allowing only 20 patients a day) gave us an average of 240 patients in one month. However, the vaccine is offered now every day, giving us an average of 775 patients in the month of April. Walgreens has been amongst the many different companies and corporations to end the use of the Johnson and John vaccine after the FDA and the Centers for Disease Control and Prevention recommended a pause within its administration, as there has been six cases of rare blood clotting of patients who received that particular vaccine (Newsroom, 2021). However, administering the Pfizer vaccine the same way a flu-shot is administered has been a great success for both the company and patients.

Evaluation/Conclusion: The goal of the United States government is to have enough COVID-19 vaccines for all those of the U.S. who wish to receive one, which companies have been very successful at achieving. However, to get growing patients out at a reasonable time, Walgreens is working on offering more than one vaccination booth. Offering at least 2-3 booths will at least allow patients to come in, get vaccinated, and leave within 3-5 minutes. Unfortunately, with only one booth available, patients are spending 10-15 minutes within the store for their vaccination process.

Title: COVID-19 Infection Rates in Rutgers University Correctional Health Care Employees

Name: Victoria Oyeneye

Preceptors: Kathleen Black, Program Manager

Agency: Rutgers Environmental and Occupational Health Sciences Institute - Piscataway, NJ

Purpose: To estimate rates of COVID-19 infection among Rutgers University Correctional Health Care (UCHC) employees.

Significance: Research has shown that healthcare workers (HCW) contract COVD-19 at a higher rate than their non-HCW counterparts. As of April 1st 2021, there were over 456,000 confirmed COVID-19 cases among HCW in the United States (CDC, 2021). There is a gap in research concerning COVID-19's occurrence in HCW in the prison setting. A recent Rutgers study found that nurses were more likely to test positive for SARS-COV-2, the virus that causes COVID-19, than other HCW in two NJ hospitals (Barrett et al., 2020). Overcrowding and lack of ability to social distance within prisons may influence the rate at which HCW in this setting contract COVID-19. In order to fill this research gap, Dr. Julie Caruth is conducting a study in order to examine the incidence of COVID-19 infection among HCW in state correctional facilities.

Method/Approach: Over 2,600 weekly SARS-COV-2 test results of nearly 800 Rutgers UCHC employees were entered into the REDCap database by two Bloustein interns and additional EOHSI staff. For quality control, double data entry was done and comparisons were conducted to identify errors. Selected data were preliminarily exported into Excel, cleaned to remove duplicate records, then analyzed to identify trends by race and occupation. The goal of this study was to see if the pattern of infection rates among HCW was similar to that among UCHC workers.

Outcomes/Results: The cohort (n=790) was racially diverse (44.6% White, 7.4% Asian, 4.2% Hispanic, 32.3% Black, 11.5% Other/Unknown). Overall, 77 participants tested positive for COVID-19. Black participants made up over 40% of the cohort's positive test. Infection rates were highest in participants who identify as Asian (20.3%), Black (12.9%), Other/Unknown (9.9%), and Hispanic (9.1%), compared to those who identified as White (5.7%). Nearly 60% of the cohort's positive test results occurred in nurses. Medical technicians had the highest rate of infection (16% positive) compared to 13% of nurses, 7.5% of physicians, 0.9% of mental health clinicians and 7.2% of "other" UCHS clinical staff.

Evaluation/Conclusion: The highest infection rates were found in roles that typically require regular patient contact. However, exposure to positive patients among participants is unknown. The higher infection rates in non-White participants reflects trends seen in the general public. Further research is needed to determine racial disparities in HCW infection rates. As Dr. Caruth's study continues, its findings can be used to provide insight to the nature of COVID-19 in the correctional environment and may be used in the future when developing strategies to lessen the spread of COVID-19 among prison HCW across the nation. References

Title: Myopia Management Public Awareness Initiative

Name: Saurabh Parikh

Preceptors: Bethany Fishbein, Doctor of Optometry

Agency: Somerset Eye Care - North Brunswick Township, NJ

Purpose: Execute a public awareness campaign increasing interest about the worldwide myopia epidemic and the importance of myopia management.

Significance: Myopia has become the most common ocular disorder in the world with its prevalence rate projected to be at 52% worldwide by 2050. Myopia is also the leading cause of visual impairment in children. According to the National Eye Institute, in the United States, approximately 42% of Americans ages 12-52 are nearsighted, a 17% increase since 1971. To combat this increase in myopic prevalence, Somerset Eye Care offers a myopia management program designed to help slow the progression of nearsightedness amongst young children. This project utilized various marketing strategies to raise awareness about myopia and the myopia management program, as well as encourage parents to get their children checked and treated as soon as possible.

Method/Approach: On February 15th, emails were sent to 12,719 former and current patients to raise awareness about myopia and inform them about the upcoming myopia management seminar. The seminar, scheduled for February 25th, aimed to inform parents about the effects of the COVID-19 lockdown on their children's vision, as well as inform them about preventative measures (ex. myopia management program) that can be taken to prevent a worsening prescription and an overall increased risk of developing various ocular diseases. A handout/guide was also created to provide attendees with a summary of the information provided during the seminar that they can refer to later. From February to March, a total of 3 organic posts were created for Facebook to educate the followers of Somerset Eye Care about myopia via various researched statistics and facts.

Outcomes/Results: Of the 12,719 email recipients, 4102 recipients (32%) opened the email and 80 (0.006%) clicked on the seminar registration link. Twenty people attended the seminar on February 25th. The Facebook posts reached between 85-169 people and averaged 3 engagements (likes, link clicks, etc.) per post. The Facebook post displaying a line graph discussing the projected increase in myopic prevalence from 2010-2050 had reached 169 people, the most amongst all the posts. Since the beginning of 2021, 15 people have enrolled in the myopia management program, as opposed to 6 people in 2020 and 3 people in 2019 to enroll within that same time period.

Evaluation/Conclusion: Tactics are evaluated by their ability to reach people, as well their ability to increase the number of patients and myopia consultations/treatments performed. The emails and social media posts were seen by large amounts of people and the seminar educated 20 parents about myopia, yet due to popular belief that common eye conditions (like myopia) are not a serious issue, many people still chose not to take action. Therefore, although the enrollment figures do represent a significant increase in monthly enrollments than seen in years prior, the focus must shift to convincing people to make an appointment rather than attending seminars. Increasing the number of appointments will not only require utilizing emails and social media, but also paid advertisements as they escalate reach. Finally, future interns must understand that getting people to take action is arduous, so stressing consequences is crucial.

Title: Evaluation of the McKenzie Method vs. the Piriformis Release on the Hip

Name: Sara Park

Preceptors: Supervisor: Kevin Schnitzer DPT, PCS, Physical Therapist

Agency: BreakThru Physical Therapy and Fitness - Medford location

Purpose: To determine whether significant improvements in patient pain and mobility are seen through the utilization of the McKenzie Method or the Piriformis Release when treating the hip.

Significance: The primary function of the hip is to bear the body's weight. The hip is what allows movements such as walking, running, and jumping. According to the data from the National Center for Health Statistics reported by the CDC, in 2010 a total of 310,800 hip replacement surgeries were performed on individuals aged 45 and over in the US. The CDC noted that from the years 2000-2010, the number of surgeries performed doubled and it can be assumed that the cases have probably steadily increased since. BreakThru staff ensures all patients walk out of the facility with proper education on pain management, increased range of motion, and/or increased mobility. Extended research on the McKenzie Method and the Piriformis Release could help decrease the number of hip replacement surgeries performed.

Method/Approach: The first step was to gather information on the utilization of the McKenzie Method to target the hip. This method utilizes repetition of movement, seen to alleviate pain and seen to significantly increase range in motion. Six sets of 10-12 repetitions of hip extensions with and without the support of the hand on the back to apply more pressure are seen to improve range of motion of the hip. The second step was to understand the technique needed to perform the piriformis release. This manual release requires finding the trigger points below the iliac crest and finding the tight fascias to palpate and compress the piriformis muscle. As a result, both methods in physical therapy are seen to alleviate pain and increase range of motion and mobility for patients short-term rather than long-term.

Outcomes/Results: Multiple researchers have deemed the Mckenzie method to be an effective treatment option for pain. On average, patients who participated in 40-50 min sessions 2-3 times per week for about 3 months saw positive results. However, there has not been enough research conducted to conclude the McKenzie method more effective in treating pain of the hip to that of the Piriformis Release. The one thing the Piriformis Release does lack in comparison to that of the McKenzie method is being cost effective as the Piriformis release requires professional assistance.

Evaluation/Conclusion: Overall, there is not enough research to declare one method of treatment more superior than the other when evaluating the hip. People's responses and perceptions to pain are so uniquely different that continual exercises for mobility and strengthening are deemed most effective in controlling long term pain of the hip.

Title: COVID-19 Pre-Procedural Process

Name: Anasuya Parray

Preceptors: Mary Kelso, Regional Director of Patient Access

Agency: Robert Wood Johnson University Hospital

Purpose: To identify inefficiencies within the COVID-19 pre-procedural process to ensure optimal patient experience and to analyze factors contributing to claims on hold to bill to insurance companies.

Significance: The COVID-19 pandemic has halted operations of many businesses. The New Jersey Department of Health issued Executive Directive 20-018 which established guidelines for hospitals to resume scheduled and elective procedures. This directive states that "Facilities must test (specimen collected and result received) each patient within a six-day maximum before a scheduled procedure, unless the patient will receive a Level 1, 2 or 3 procedure as defined herein," (NJDOH, 2020). Robert Wood Johnson University Hospital established a required protocol with the COVID-19 pre-procedural process that allows patients to get tested before coming in for their scheduled procedures and visits. By analyzing this process, claims on hold from insurance companies will decrease and will additionally ensure patient experience during their scheduled screening.

Method/Approach: The RWJUH COVID-19 pre-procedural process is a multi-step process that begins with clinical departments obtaining basic patient demographic information which then gets sent to scheduling to create an appointment time. The patient then goes for their COVID test with this inputted information in the hospital's EMR system and their insurance gets billed for this service. Investigating this procedure from a Process Improvement approach indicated ineffective communications between the departments themselves, and most importantly with the patients. Through root cause analysis, it was determined that the main concern is relaying the correct information to the patients whether it be directions, instructions, or appointment time.

Outcomes/Results: Correct instructions and directions must be provided for efficient patient education. This begins with obtaining their correct phone number and demographic information from the clinical departments to place into the scheduling system. Obtaining appropriate information also alleviates much of the burden when it comes to verifying the patient's insurance eligibility to ensure timely billing. Once the procedure is scheduled, the COVID-19 test is scheduled a few days in advance according to hospital protocol. The patient will then receive a phone call to be reminded of their appointment time and date, along with being told of the COVID-19 preprocedural website that they can visit for more information.

Evaluation/Conclusion: As a result of Process Improvement review, key areas of improvement and suggestions to the respective departments include setting up outbound service reminders, increasing signage around the testing site, and enhancing the official pre-procedural website to be more user friendly and comprehensive. The lab coordinators in charge of the site shared that daily, 15% of patients have either missed their appointment time or were not adequately informed of the protocol. Once the outbound phone services are running, the lab coordinators will report back with how many patients were now misinformed post revising the process. This is a project that requires cyclical reassessments. After one month of outbound services running, metrics should be reconciled daily.

Title: Enhancing the Task Force on Adolescent Sleep & School Start Times

Name: Bijal Patel

Preceptors: Marcela Betzer, Program Director

Brittany Johnson, Senior Project Manager

Agency: New Jersey Chapter, American Academy of Pediatrics (NJAAP)

Purpose: To design and implement a survey to gather information on adolescent sleep habits and behaviors to help inform future educational and advocacy efforts of the Task Force on Adolescent Sleep & School Start Times.

Significance: In the state of New Jersey around 86% of schools start before 8:00 AM (Adely 2019). The American Academy of Pediatrics states in their policy statement that adolescents need 8.5-9.5 hours of sleep every night (School Start Times for Adolescents 2014). School start times (SST) have a direct impact on adolescent health because adolescents experience a shift in their circadian rhythm which prevents them from going to sleep earlier than 11:00PM (Carskadon, 2011). Therefore, their bodies desire sleep when they are woken up in the early hours of the day. Due to insufficient sleep, adolescents may experience increased anxiety, depression, poor academic performance, engagement in risky behavior, risk of motor vehicle accidents and increased likelihood for overweight and obesity. NJAAP has a Task Force dedicated to raising awareness and advocating for a policy change in NJ to support later SST.

Method/Approach: In order to spread awareness about early school start times and the impact on adolescent health, five education documents were created; FAQs document, SST social media tool kit, one-pager on mental health impact of early SST, and a quarterly newsletter, and a Call to Action. Various databases were used and 27 scholarly articles were reviewed to create these documents. A survey was created to assess knowledge, attitudes, and behaviors of students, parents, and school staff regarding sleep and school start times in New Jersey. Existing samples of published and unpublished surveys on sleep and school start times were reviewed. After designing the survey, questions were entered into the distribution platform, and Task Force members will be invited to provide feedback before the survey is distributed.

Outcomes/Results: To share information on the importance of adolescent sleep and school start times with a broader audience, a variety of documents were created to support the advocacy efforts of the Task Force. The creation of these five educational documents will help school administrators, students and parents understand the importance of later school start times and hopefully, ultimately decrease the number of schools starting before 8:00 am. To gather additional information, a survey of 50 questions was designed and will be distributed to roughly 400 students, parents and administrators. Forty-four percent of the questions were targeted towards students, 26% of the questions for parents, and 30% of the questions for administrators.

Evaluation/Conclusion: The resources that were developed through this internship will help the Task Force provide education and advocacy on the topic of SST and adolescent sleep. The survey tool will help gather information on sleep related habits and behaviors of students to better understand the landscape of adolescent sleep in New Jersey.

Title: Community HIV/AIDS Health Workshop

Name: Chandni Patel

Preceptors: Susan Giordano, Director of HIPHOP

Agency: Homeless and Indigent Health Outreach Project (HIPHOP)

Purpose: To create an interactive HIV/AIDS workshops to educate the adults of the New Brunswick community about safe sex and disease prevention.

Significance: There are 1.2 million people living with HIV in the United States today, and about 14% are unaware that they do. Ethnic minorities in particular have higher rates of HIV, mostly because of the taboo within their communities to speak about the subject and the lack of access to affordable resources. According to HIV.gov, there were 36,400 new cases of HIV within the United States in 2018. In 2018, the highest rates of HIV existed for the age group of 25-34, with the second highest being 35-44. The cycle of not knowing how and why HIV spreads is detrimental to low-income individuals who need more resources. There is also a lack of education within these communities on topics such as heart health, the effect of drugs on the brain, and nutrition. Workshops on these subjects will be redesigned to better address the target audiences.

Method/Approach: The main tool to stop the spread of HIV is prevention, done primarily by education and safe sex. An HIV/AIDs workshop encompassing interactive activities, presentations, and games were created to engage outpatient substance abuse patients. To get more people in attendance, graphics were designed and sent to spread the word. Some things that will be looked at: number of participants, how much was learned, and if there was increased interactivity. The main goal is to increase taboo conversations surrounding this topic and decrease transmission of HIV based on what they have learned. Additionally, workshops on 8 different health-related topics were redesigned and updated with increased interactivity. Design software was utilized to plan new programs and transform existing presentations.

Outcomes/Results: After a series of questions to gauge knowledge on the topic thus far, it was brought to light that all members of the HIV/AIDS workshop had many misconceptions surrounding the topic. Mainly, the idea that HIV/AIDS is equivalent to death was proven to be erroneous, and the participants went home with a more informed understanding with the illness. Also, the 8 health-related workshops that were redesigned will be used in the future semesters.

Evaluation/Conclusion: A pre-survey showed that the structure of the workshops was disorganized and difficult to follow. After accounting for this direct feedback, the HIV workshop that was presented was shown to be organized, more interactive, and filled with stimulating conversations. Additionally, the other 7 workshops that were updated and designed accounted for the feedback left by previous participants and medical students, and are more catered towards the target audiences with greater flexibility and structure, as asked for by the community partners. A process evaluation held to better understand if the interventions were effective showed that the community partners and participants were happy with the changes, and wished to see more interventions like such in the future.

https://docs.google.com/document/d/1IHHHZJCCvlzfABzsVQP2HlQcAY6LXbXmzJZ7aSlqSPI/edit?usp=sharing

Title: NJPIRG Hunger & Homelessness Visibility Campaign

Name: Nidhi Patel

Preceptors: Kate Sundberg, Campus Organizer; Mary Skaltsis, H&H Campaign Coordinator

Agency: NJPIRG Students - Rutgers New Brunswick

Purpose: To develop and execute a week of various visibility campaign actions to raise awareness to basic need insecurities and fundraise for local food pantry or shelter.

Significance: Latest research shows that one in five students currently are experiencing hunger and 55% of food insecure students have to choose between getting their textbooks and buying food (Our Campaigns 2020). Even on college campuses, students face basic food or shelter insecurities. NJPIRG's Hunger & Homelessness Campaign raises awareness and collects donations, mostly money due to the pandemic, which go to the Rutgers Food Pantry or a local shelter. In fact, we produce so much food that 40% of it is wasted. The solution to hunger is literally thrown away (Zero Hunger 2020). The Hunger and Homelessness Campaign takes action by educating, engaging, and training students to raise awareness and fundraise while advocating for long-term systemic change.

Method/Approach: A campaign week of action was planned to raise awareness and fundraise in honor of Women's Day. The first step of the backwards plan was to select a week for the Campaign Week of Action. March 8 to March 12 was chosen. The next step was to fill out a Virtual Event Coordinator Planning Worksheet which organized backwards plan, goals of event, logistics, volunteers, vision, schedule, training, etc. into one document. To start off Women's Week of Action, graphics were created and posted on social media about the rates at which women are affected by basic need insecurities. The second day consisted of phone banking friends and family to donate to Women Aware, a battered women's shelter in New Brunswick. Day three was a donation competition between the members of Hunger & Homelessness Campaign and the members of 100% Renewable Energy Campaign to reach a wider, more diverse audience. Day four focused on visibility for the Women's Week Webinar via social media or messaging friends and family. The last day was a virtual webinar to learn more about macroeconomics, women's role in STEM, basic need insecurities, and intersectionality from Dr. Radhika Balakrishnan.

Outcomes/Results: Throughout the week of action, the campaign raised \$318 for Women Aware and received 15 anonymous donations. Women Aware sent an appreciation letter to NJPIRG - Rutgers New Brunswick stating "despite the ongoing challenges of the COVID-19 pandemic, your organization of students stepped up in a big way to support the victims/survivors who turn to Women Aware for assistance." Regarding the webinar, a press release* was published, three external organizations co-sponsored, and had 35 attendees.

Evaluation/Conclusion: The success of this visibility campaign was measured through meeting the set goals. Looking at the outcomes of the week of action, we concluded that it was a success because goals were achieved, donations for Women Aware were received, and the NJPIRG Hunger and Homelessness Campaign members organized a successful and educational webinar. The overall goal was to raise \$200 and register 20 attendees for the webinar, however, both were exceeded.

Title: COVID-19 Prevention Strategies Within A Healthcare Practice

Name: Parth Patel

Preceptors: Dr. Deepali Patel OD

Agency: NJ Eye Associates

Purpose: To maintain safety and professionalism while implementing techniques to protect and prevent the spread of viral diseases in the office workplace located in Somerset, NJ.

Significance: As many citizens of Somerset, NJ (and surrounding areas) return to regular life, the spread of the Coronavirus could increase if preventative techniques are not implemented. As of March 2021 23,383 people have perished from the novel Coronavirus. The problem of the virus and the chances of another wave is truly a daunting possibility. In the workplace, preventative measures such as cleaning of office surfaces, limiting patient traffic in the waiting room and implementing virtual waiting rooms to streamline this transition. This research aims to combat the spread of the virus within the workplace and establish long term practices that can take place to combat future issues.

Method/Approach: This effort relies heavily on the collection of valid data. For this, weeks of data were collected assessing multiple factors within the office. About two weeks of data was taken and analyzed to assess which times of the day the office saw the most traffic. Using this knowledge a new plan to rearrange the waiting room took place to account for social distancing practices and efficient patient flow management. During these times an "online" waiting room would commence. Using applications such as PatientTrak, the staff was able to send patients to an online waiting room where only the first seven people in the virtual waiting room could enter the office. Information would be checked by the front desk to verify their position in line. Throughout all of these changes a focus would be put on how to establish long term safety protocols.

Outcomes/Results: Based on the data collected during the process the patient flow within the office significantly improved. The data was collected using excel during the hours of 8 AM to 5 PM. During the busiest hours (3 PM-4 PM) there was a 44 patient flow occurring without the implementation of PatientTrak. Halfway through the full implementation of the program that number decreased to 15 patients. When the program was fully implemented there was a decrease to just seven patients during the main hours of operation. Based on this data, the experiment was successful and the implementation of virtual waiting rooms proved to be a successful strategy to combat a pandemic like virus such as COVID-19.

Evaluation/Conclusion: The implementation of the virtual waiting room shows how technology and modern techniques could be used to develop a safe environment during times of medical hardships. The convenience and overall safety of patients under the care of physicians should be highly regulated and improved with the use of evolving technology.

Title: Seniors' Education and Outreach Program

Name: Pooja Patel

Preceptors: Jessica Guzman - Outreach Coordinator for Seniors' Education & Outreach, Yesenia

Medina-Hernandez - Program Coordinator

Agency: Robert Wood Johnson University Hospital-Community Health Promotions Program

Purpose: To improve the health and wellness of the senior citizens of the greater New Brunswick area by strategically providing health education, community outreach, and necessary information relating to an ongoing pandemic or any potential epidemic.

Significance (RWJ health promotion program): People over 50 are faced with unique challenges in the New Brunswick area due to improper nutrition, lack of basic health and wellness knowledge, and lack of access to healthcare. Thirty-five percent of the New Brunswick seniors face many disabilities and mental health problems such as dementia (Aging Strategy, 2017). In 2014, about 35% of seniors reported having three or more chronic health conditions such as hypertension, diabetes, cancer, respiratory diseases, etc (Aging Strategy, 2017). RWJUH's 'Senior's Education and Outreach Program' strives to reduce the many existing barriers (language, socio-economic, physical, etc.) among seniors, provide health-related education and connect the target population to the appropriate resources.

Method/Approach: To understand the New Brunswick community better, in partnership with Rutgers Institute for Health, excel sheet surveys were created that inquired about individual's race, language, health topics of interest, demographics, necessities, health conditions, etc. These surveys were filled out by our team by contacting the senior citizens via phone call and conducting the interview to complete the form. Besides, we also created infographics, posters, and flyers to educate the community about current health updates, vaccination and COVID-19 updates, and self-care initiatives. They were created in English and Spanish. Further, these materials were posted on Facebook as most of the senior citizens utilize Facebook as a platform to stay updated. We also utilized the Facebook feature that allows people to go live and share events, to promote community outreach and education.

Outcomes/Results: During outreach, a total of 274 senior citizens were contacted to participate in surveys that inquired about the healthcare/wellness topics that they would like to get informed about. Out of 274 seniors, only 216 seniors participated. Among those 216 participants, 61 were ages 50+, 61 were 55+, 79 were ages 60+, and 15 were ages 75+ respectively. Thus, about 80% of the contacted seniors participated in the survey. Most people showed interest in learning about Hypertension, Diabetes, Arthritis, Vaccination, Fitness and nutrition, Anxiety, Depression, etc. for the question that inquired about their topics of interest. About 70% of the responded population was Spanish speaking. Additionally, as a result of posting informational material on Facebook, a lot of individuals showed their interest in getting educated and informed. This response was witnessed on Facebook during the community outreach live session as there were about 1000 views during the live session.

Evaluation/Conclusion: The efforts of RWJUH-CHPP seem to be fruitful in the future with respect to the New Brunswick community. Social media has proven to be an effective platform during the entirety of community outreach and education. Furthermore, infographics generated in multiple languages highly assisted in decreasing the language barriers and increasing community engagement.

Title: Protecting Workers: An assessment of COVID-19 workplace safety regulations

Name: Puja Patel

Preceptors: Co-Executive Director, Marcy Goldstein-Gelb

Agency: National Council for Occupational Safety and Health

Purpose: To assess the effectiveness of current COVID-19 workplace safety regulations and to use those findings to propose new effective standards of safety for all workers during and after the pandemic.

Significance: The Occupational Safety and Health Administration (OSHA), our national health agency, believes that workers should not dismiss their health for the sake of their occupation (United States Department of Labor, 2021). However, since the SARS-CoV-2 virus outbreak, OSHA failed to institute safety requirements, to perform inspections, and to mitigate workplace violations with high-priority (Chakraborty, 2021). Likewise, as the inspections scaled-down by 50%, workplace complaints and concerns for safety during the pandemic increased by 15% in 2020 (Chakraborty, 2021). Undeniably, even the COVID-19 safety guidance that was introduced by OSHA fell short of directing employers to devise a COVID-19 protection plan for their workers, consequently the health of countless workers suffered, many of which passed away (Chakraborty, 2021). To address the challenges of worker's safety, the National Council for Occupational Safety and Health advocates workers need a safety standard from OSHA that requires employers to develop COVID safety plan of action with workers.

Method/Approach: To build the framework for an effective COVID-19 protection plan, this project prioritized evidence-based recommendations of and for all essential workers. To gather this data, we began by researching and documenting 1000+ COVID-19 fatalities of workers from different age groups, different locations, and different occupations. This measure proved that regardless of the profession, all workers needed a better protection plan at work. Furthermore, to trace the origin of these workplace fatalities, events such as educational workshops, COSH Network meetings, PWA Teach-In, and the Day of Action gave workers a platform to come and share their individual workplace safety concerns with the rest of the network. To show our workers they have the power to demand changes, we assembled educational resources to help them summon all their courage to take the next steps towards a more protected workplace.

Outcomes/Results: During Workers Memorial Week, the fatality database and other materials compiled on the topic of worker's safety and health are used to bring awareness to the issue of workplace fatalities, which has only worsened during the pandemic. This event will be the outcome of all the research compiled months prior, as 13+ events will be organized, 50+ slide presentation will be shared full of resources, worker experiences, and the result will be apparent as it will help aid our workers take the responsibility of creating a safe work environment back into their hands.

Evaluation/Conclusion: This research may not yield policy reforms in the immediate future, however, we can guarantee that more workers will be aware of their rights to demand for safer working conditions. Ultimately, this research will serve as the framework for future safety standards as it incorporates the experiences and the voices of workers from all types of backgrounds and professions.

References

Title: Care Coordinator Patient Interactions with Covid Restrictions

Name: Avnish Patel

Preceptors: Angelica Torres and Matthew Koh, Assistant Manager, Outpatient Operations

Agency: Memorial Sloan Kettering Cancer Center- Manhattan, New York

Purpose: To maintain consistent covid restrictions while interacting with patients and employees in the covid clinic.

Significance: The number of people that die from Covid-19 in the United States is about 494,235 from 2020-2021 roughly about a year. In the state of New York, the mortality rate for Covid-19 is about 48,279 which is higher than the average rate in the state of New Jersey at 23,383. Memorial Sloan Kettering Cancer Center provides free Covid-19 screening for all internal staff to keep all employees safe. Patients feel safe being around the staff at MSKCC and receive their treatments without any problems. Screening for Covid -19 for the internal MSKCC population has decreased in the past few months due to all employees being on track to get vaccinated and control the risk factors at the MSKCC. This project will help identify the risk factors at MSKCC for the internal staff and keep everyone safe.

Method/Approach: MSKCC follows a set of standards known as the All Care Together (ACT) principles to ensure patient independence, cautiousness or discomfort during the healthcare process, and productive interactions between care coordinators to health care providers, and to patients. Through this internship a group of interns will learn and embrace the ACT mission at MSKCC in the Covid-19 surveillance and vaccination clinic. Team at the surveillance clinic works together to keep the physicians and other staff members safe by interacting and processing internal screening for Covid-19 providing a positive experience for all staff members. All members at MSKCC follow the CDC Covid-19 guidelines when interacting with each other, providing assistance for employees, patients. Team members also provide assistance for employees with contact tracing for positive tests on the floor or department.

Outcomes/Results: The initiative of this program is important because it aims to create a supportive healthcare climate for MSKCC patients and staff members who are either getting tested or vaccinated for Covid-19. Through the Covid-19 testing clinic MSKCC plans to continue surveillance testing for all the staff members at MSK who are not vaccinated yet. This process keeps all the staff members safe and prevents the spread of Covid-19. Contact tracing and safety procedures are held in place to control the spread of Covid-19 amongst staff members and patients throughout different departments.

Evaluation/Conclusion: The MSK surveillance clinic on the main campus has been successful at testing and the agency is well on its way to immunizing all the physicians, nurses and other staff members of our community against COVID-19 infection. MSK has a well-organized flow and arrangement that makes it easy to manage staff members during the check-in process and keep everyone safe. The next step will be to improve the surveillance testing and expand at more locations to keep all of the MSK community safe and follow the CDC guidelines.

Title: Live Well Campaign Social Media Performance during COVID-19 (2020-2021)

Name: Dinaxi Patel

Preceptors: Manuel Castaneda, Community Health Director

Agency: New Brunswick Tomorrow - New Brunswick, NJ

Purpose: To compare the Live Well social media performance during the first year of the COVID-19 pandemic on Facebook, Instagram, Twitter, and the website from March 2020 to March 2021.

Significance: The COVID-19 pandemic has severely affected many people, from the stress and anxiety of the virus itself to having to complete school and work from home. The Live Well - Vivir Bien New Brunswick campaign has provided many health and wellness resources and informational social media posts to keep the New Brunswick community healthy and virtually informed by breaking down resources into five categories (Feel Well, Be Well, Eat Well, Move Well, and Be Safe). The New Brunswick community is encouraged to embrace a healthier and active lifestyle at home by reducing stress and anxiety, becoming more active to improve health, and consuming nutritious foods. As we navigate this pandemic and transition out of COVID-19 restrictions, it is crucial that we analyze the social media data in order to display a smooth transition across all platforms and exhibit any trends. This project will aim to help maintain and improve our strong and organized online appearance.

Method/Approach: The Live Well - Vivir Bien New Brunswick campaign has focused on creating weekly social media posts and updating resources on the website to encourage a healthier lifestyle, and the Live Well analytics will be used to compare this performance during the first full year of the COVID-19 pandemic. The specifics that will be used are the number of followers, engagements, website analytics, and the type of content for the Instagram, Facebook, and Twitter platforms. After compiling the analytics for the first year of the COVID-19 pandemic, the performance will be clearly defined and will assist in seeing if there are significant trends that improved or maintained our engagements.

Outcomes/Results: From March 2020 to September 2020 and September 2020 to March 2021, the data demonstrated that the COVID-19 spike maintained a steady increase throughout the year in the number of followers and engagements on the various social media platforms. Within the year, 166 followers were gained on Instagram, 119 fans were gained on Facebook, and 43 followers were gained on Twitter. There was more of an increase in fans and followers from March 2020 to September 2020 than from October 2020 to March 2021. This spike also contributed to an increase in traffic on the website; the most visited pages were the home and COVID-19 resource page. When the vaccine rollout began, there was another increase in site visits. As for the content of the posts, the COVID-19 resources were the most popular.

Evaluation/Conclusion: The pandemic has increased the following and engagements throughout the social media platforms. Trends were increasing in the first half of the year when the pandemic began, and in the second half, when vaccine administration began, there was another spike in website visits. Overall, we improved our social media appearance by including more COVID-19 resources and using current public health issues to guide the content. As the trends continue to lean towards resources regarding the pandemic, the conclusion can be made that this was a situational increase. As we transition out of the pandemic, it is essential that we continue to encourage CDC guidelines while altering our content to cater to those that are fully vaccinated and can be around others that are also vaccinated.

Title: Evaluation and Creation of Training Materials for Clinical Operations

Name: Nehal Patel

Preceptors: Neha Patel, Specialist Local Trial Manager of Clinical Operations

Agency: Janssen Research & Development (Non-Affiliated)

Purpose: To evaluate current training materials used in the clinical operations process and create new and improved educational training materials for new and existing employees.

Significance: According to the CDC COVID Data Tracker, an estimated 28.5M cases of COVID-19 have been reported in the U.S. to date. In addition, an estimated 80.5M vaccines have been administered. The state of New Jersey specifically, has reported approximately 800,000 cases to date. Janssen Research and Development alongside Johnson & Johnson has worked towards creating a one dose COVID vaccine which has recently received Emergency Use Authorization. Without attention to detail and successful clinical operations, the development of such vaccines wouldn't have been possible. The evaluation and creation of training materials completed through this project will outline the basis of standards needed for clinical operations to be successful thus resulting in the development in life changing vaccines.

Method/Approach: First, information on the different types of regulatory documents was gathered. These documents include the investigator's brochure, FDA Form 1572, financial disclosure form, and IRB approval requirements to name a few. Next, the information gathered was drafted and finalized after review of a few experienced professionals in the pharmaceutical field to ensure the educational materials would be written in a way that individuals in the field would find easily understandable. Another material was created regarding the topics of why certain aspects of clinical operations are important, such as attention to detail and being able to work in a team setting. A third material was created sharing some tips to follow when working in this field including some "do's and don'ts" for successful clinical operations to take place.

Outcomes/Results: The three materials were sent electronically to Neha Patel, Specialist Local Trial Manager of Clinical Operations to share with her colleagues, interns, and other employees. The old materials followed a less concise outline and presentation of the information. Such was changed in the new materials by the use of bullet points, changes from long paragraphs to shorter sentences, and the incorporation of hyperlinks to extra resources. The organization and presentation of the information is important because the differences between regulatory documents can become confusing. These changes were critical to ensure that the information was easy to follow and could be referred back to as needed quickly. Some of the information used to create the third material with "dos and don'ts" stood out as they could easily be formulated as tips for employees to remember on a more daily basis. So far, colleagues have expressed more ease with teaching interns, students who wish to shadow them, and with working with new hires.

Evaluation/Conclusion: The pandemic has limited access to qualitative feedback on the effectiveness of the materials created because employees are mainly working remotely. These materials will be evaluated each year and changed as needed. But, the continuation of successful clinical operations and training at the beginning of employment will measure the success of the materials created. Additionally, positive feedback on the use of the training materials from employees will allow for further measurement of success.

Title: Addressing issues related to billing and collection

Name: Prapti Patel

Preceptors: Supervisor: Susan Conover, Accounts Receivable Manager: Sherri Balla, Chief

Financial officer: Sussana Gummel

Agency: Princeton Medical Group

Purpose: To identify the top reasons for rejections of external lab billing claims from August 2020 to December 2020, and try to get 80% of those rejected claims paid.

Significance: In the United States, most of the healthcare cost depends on insurance reimbursements. Most insurance companies have guidelines on how claims need to be submitted. Princeton Medical group is a multispecialty outpatient facility that wants to help patients and help resolve lab billing claims rejected by the insurance companies more efficiently. This project aimed to identify the top 3-5 reasons for claims rejection and try to get 80% of those claims paid.

Method/Approach: In order to get the claims paid, insurance companies were contacted to verify the missing information and reason behind the claim's denial. If the patient's insurance was found to be inactive, then the patient was contacted to see if they have any other insurance, and if not then a bill was sent to them. When the patient was not able to pay the bill, then different options of scheduling the patient on payment plan were made.

Outcomes/Results: Most of the insurance claims were being denied because the wrong procedure code was used for billing. The next most frequent denial was because prior authorization or referrals were not obtained before doing the procedure. It was also found that most of the Medicare claims were being denied because patients have not updated their EOB with other commercial insurances after they have started Medicare. Another reason for claim denial was due to mismatched patient demographics such as change of address. After correcting the claims and resubmitting the corrected claim, 60% of the claims were paid. It is expected that the 80% goal will be reached by 04/30/2021.

Evaluation/Conclusion: Most of the claims were not getting paid because of the invalid diagnosis codes being billed according to the insurance plans. Prior authorization needs to be obtained from the insurance companies before doing specific procedures, or a referral needs to be obtained before seeing the specialist. It was found that most of the new patients coming to see the doctor did not have prior authorization or referrals and as a result claims are being denied by insurance companies. Careful evaluation of the claims and finding the reason behind the claims denial will help to reduce the future claims denial.

Title: Analyzing Non-Profit Employee Benefit Packages

Name: Riya Patel

Preceptors: Namasha Schelling-Operations Manager

Agency: Day One New York

Purpose: Assess the benefits offered (PTO, healthcare, retirement) to Day One NY's employees and propose changes or adjustments to improve employee morale and productivity during the pandemic.

Significance: Due to the pandemic, many organizations have switched to a remote/hybrid work environment. Since employees are no longer working with their teams in-person, this can impact productivity levels since there are limited human interactions. Staff members at Day One are working fully remote and this can hinder team collaboration and innovation to a certain extent. Day One NY, along with other nonprofits, had their daily operations disrupted and it is vital for employees to stay motivated and to feel appreciated for all that they do during these unprecedented times.

Method/Approach: In order to transition from virtual to an in-person work setting, the organization created an employee survey to gage the staff's opinions on returning to work. There will be a major shift in the workplace dynamic and company culture that the administrative department must address. Additionally, employees are motivated by both extrinsic and intrinsic rewards, primarily through benefits such as healthcare, paid time off, and retirement plans. An analysis between Day One benefits and a survey conducted by New York Nonprofits will help to compare the benefits that are offered to employees and other NY nonprofit organizations. Proposals will be drawn to suggest ways in which Day One can remain competitive in the market and how they can be supported during the pandemic.

Outcomes/Results: Day One averages approximately 35 hours a week for full-time employees, compared to Nonprofit New York's finding of an average of 39.04 hours for full-time non-profit employees in New York. Day One utilizes a professional employer organization that assists in providing additional HR services. Employees are offered a minimum of 33 and a maximum of 40 sick, personal, and vacation paid time off days, while other non-profits average a minimum of 18 and a maximum of 25 PTO days. In relation to healthcare, Day One provides health, vision, and dental care coverage; the most popular being BlueCross Blue Shield's EPO 11 Blue Access Plan. Additional nonprofit organizations from the survey include 23 providing EPO/HMOs and 28 offering PPO/POSs. Blue Access Plan 11 covers both an individual and their family as an exclusive provider organization that acts as a hybrid plan with low monthly premiums and deductible payments that total \$500 for an individual and \$1,250 for family.

Evaluation/Conclusion: The benefit packages available for Day One employees help support their work-life balance, as well as their overall health and well-being. Even though employees are currently working in a remote setting during the pandemic, Day One provides an extensive amount of PTO days that are above the average number of days in comparison to the Nonprofit New York survey, including 10 sick and vacation days that can be rolled over into the following year. A potential benefit for employees can be the implementation of a sick leave bank where employees can donate their sick leave days to staff members who may need them more or have preexisting health conditions that need attention. The cost-saving advantage of an EPO insurance plan allows employees to find local healthcare providers and specialists without referrals.

Title: COVID-19 Screen Time Pre-Assessment

Name: Sweta Patel

Preceptors: Direct Supervisor: Purvi Shah, OD, Doctor of Optometry

Agency: National Vision/America's Best Contacts & Eyeglasses

Purpose: To determine and analyze the effects of screen time usage among individuals since the start of the COVID-19 pandemic.

Significance: The COVID-19 pandemic has increased individuals' screen time significantly in the United States. In a survey of 2,000 people, 53 percent were feeling burnt out from the increased screen time. Individuals are experiencing an increase in dry eyes and eye strain from constantly staring at various screens throughout the day, causing them to add blue light filters onto their eyeglasses. The agency provides extra testing on top of regular routine eye exams to help the optometrist better diagnose any conditions. NeverBlue (blue light filter) is available for patients to add onto their prescription or nonprescription eyeglasses. This project collects and analyzes data to measure the effects the pandemic has on individuals' eyes with dryness as well as any interests in the addition of blue light filters on glasses.

Method/Approach: This project will conduct pre-assessments on patients within the clinic. Small slips of paper will be handed out to any patient willing to complete the six questions presented. Completely optional, confidential, and anonymous, the pre-assessment focuses on patient's screen time since the COVID-19 pandemic. At the end of performing pre-testing on patients, the quick pre-assessment will be offered and collected if they would like to participate. As for responsibilities, patients will be told a brief background of the purpose behind the pre-assessment; which is written as the introduction on the slip of paper.

Outcomes/Results: Of the sample size (N=130), data shows 83 individuals (63.8%) are female compared to 47 male individuals. As for age, 1 individual is 10 years of age or younger, 13 individuals are 11-20 years old, 46 individuals are 21-30 years old, 19 individuals are 31-40 years old, 23 individuals are 41-50 years old, 14 individuals are 51-60 years old, and 14 individuals are 61 years old or older. On an average day, 6 individuals spend 0-2 hours on screens, 24 individuals spend 3-5 hours, 43 individuals spend 6-8 hours, 24 individuals spend 9-11 hours, 20 individuals spend 12-14 hours, and 13 individuals spend 15 or more hours. 94 individuals' (72.3%) screen time has increased since the start of the COVID-19 pandemic and 36 individuals' screen time has not increased. 55 individuals are interested in adding blue light filters on their glasses and 75 individuals (57.7%) are not interested. 37 individuals experience more dryness in their eyes since the start of the pandemic and 93 individuals (71.5%) do not experience more dryness.

Evaluation/Conclusion: Majority of the sample size (N=130, 72.3%) have increased screen time since the COVID-19 pandemic with 76.9% of individuals spending at least 6 hours or more on screens on an average day. Lowering the cost of blue light filters to be added onto glasses and making it more available to the public will help ensure better protection to those individuals who are spending many hours on screens. Enforcing breaks from screens after a certain period will significantly help against dry eyes and eye strain. Patients also neglect tearing as a common symptom of dry eyes. Ongoing monitoring and annual eye check ups will ensure necessary changes are made to prescriptions.

Title: The Impacts of Digital Media on Child Development

Name: Antoinette Pauwels

Preceptors: Project Assistant, Sidrah Durrani and Assistant Director, Dr. Gabriele McHarg

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

Purpose: To promote and contribute to informative video content about the impacts of media on child development.

Significance: Researchers have found that media usage can have negative and positive impacts on children's development. Englander, et. al (2017) found that recent research suggests that 50% of children own smartphones and those children may be at a higher risk of cyberbullying. Also, research findings in the journal, "Children, Adolescents, and Screens: What We Know and What We Need to Learn" summarizes how there is an unfavorable relationship between sleep and screen usage. Children and Screens is a non-profit organization founded by Dr. Hurst-Della Pietra where research is conducted on how digital media enhances, or harms, children's ability to live happy, productive and fulfilling lives. In response to COVID-19, the company has focused its efforts on a popular webinar series where numerous public health experts promote their research findings, helping to bring awareness to the digital media impacts on children. In a webinar regarding Teens, Digital Media and COVID-19, one of the panelists emphasizes how the impact of screens on kids have displaced key milestones in their development such as human interaction and sleep. With the help of Children and Screens, parents, clinicians, researchers and educators will have the resources to understand how to take care of their children in the digital age.

Method/Approach: To bring awareness and educate the public about research on the impacts of digital media on children, Children and Screens has been hosting a webinar series called *Ask the Experts* which features panels of interdisciplinary experts, including psychologists, psychiatrists, researchers, educators, public health professionals, and others. In addition, there are international retreats hosted by Children and Screens regarding topics like mental health and digital media, and impacts of screen time on the development of a child's brain. With help from the video and research interns, clips based on tips and public service announcements will be edited and made available on social media platforms, and the Children and Screens website.

Outcomes: 5 webinars have been edited and clipped with the most important parts to educate others on topics like pornography, the impacts of COVID-19 on digital media usage, social justice, and parental controls. Half of the clips were for social media usage, while the other half the clips were added to the highlight reel. Overall, the videos highlight important research information, so that the audience can be informed and educated on the topic. The videos that were created have been put on social media platforms and the Children and Screens website. In addition, video content for a promotional video about the upcoming mental health retreat has been compiled.

Evaluation: The quality of the videos will be evaluated through social media algorithms and the engagement of the viewers. Further evaluation is based on the quality and details of the editing process through Adobe Premiere Pro. The information extracted from these clips should provide parenting tips and resources on how to raise children in the digital age.

https://docs.google.com/document/d/1UGRB7dkMyNccOCo_1K83HZJDnhxAxTTWLE4EVCuaqaM/edit?usp=sharing

Title: Environmental Justice for Residents in New Jersey: Making a Safer Environment for All

Name: Pearson, Denisia

Preceptors: Director: Matthew Smith

Agency: Food & Water Watch NJ

Purpose: To advocate for environmental campaigns, reduce effects of climate change, pollution and fossil fuel infrastructure in New Jersey.

Significance: Pollution and climate change seem to be the common theme not only in New Jersey, but all over the world. That is why using advocacy in environmental change and accountability of elected officials such as town mayors and Governor Murphy are essential in battling future projects that can cause climate change. Additionally, with the New Jersey Clean Energy Act with help from supporting Food & Water Watch activists/volunteers, there should be 50% renewable energy sources by the year 2030 which would eliminate air and water pollution significantly. It is important to involve community members and elected town officials to see progressive change. New laws and policies should be put in place to prevent such harmful industries such as gas fracking from contributing to climate change. This will create a better environment and living condition for many New Jersey residents. [1]

Method/Approach: Outreach has been completed to many elect[1] ed officials and residents who live near highrisk areas concerning dangerous pipeline projects, polluted water systems, and potential construction accidents. First, the outreach was started with about 60-100 elected officials who were contacted via email to urge them to oppose the Liquified Natural Gas Transport in Gibbstown, New Jersey, and to gain enough signatures for opposition against gas fracking. The outreach was conducted in North, South, and Central New Jersey.

Outcomes/Results: Out of about 60-100 officials, there were four follow-up emails about the Liquified Natural Gas transports and one email concerning gas fracking through pipelines. In regards to the outreach that was made out to the residents of Gibbstown, over 100 people living in surrounding New Jersey towns have been contacted via phone call/text to urge them to talk to their council members and sign petitions to overthrow harmful and unsustainable gas fracking projects. Only less than half of the people called answered in regards to the project and there were twelve positive responses and three negative responses either in favor or opposition to the projects. These projects are still in motion and are not stopped yet by Governor Murphy and because of this, results of this initiative are not finalized yet.

Evaluation/Conclusion: Nothing is conclusive yet as these petitions and oppositions have not been decided upon by Governor Murphy or most local elected officials who hold power in New Jersey. This is an ongoing initiative to stop this gas fracking project that will be concluded once enough signatures have been collected and alliances are formed with residents, local elected officials and other environmental organizations.

Title: MedCycle Performance Assessment

Name: Jennifer Perez

Preceptors: Christopher Polgar, Chief

Agency: MedCycle Emergency Medical Services, Trenton, New Jersey

Purpose: To develop a spreadsheet of grants and bring awareness to the company and its mission, and educate the community on event safety.

Significance: Hundreds of thousands of people are injured outdoors every year (Flores et al., 2008). According to the NJ Department of Health, the rate of unintentional injuries is lower than the nation's average but it has been increasing over the years. By having paramedics at events and holding training sessions on CPR, the community can learn how to safely deal with a health emergency and be able to receive care quickly at outdoor events. This project seeks to provide funds through grant writing and spread awareness of the company.

Method/Approach: Information regarding grants was gathered from Google and supervisors. An excel spreadsheet was created to organize the information. The first column was the name of the grant, then the requirements for the application. The subsequent column was the due date. Additional notes and information followed. After filling out the grant applications, they were submitted. To raise more awareness about the event, a variety of marketing tactics were discussed. It was decided it would be best to have a picture frame prop featuring the company's logo and hashtag #MedCycle to be used at events for people to take pictures with and subsequently posted on the social media accounts. These details would give people incentive to look at our social media accounts and follow them. After much discussion, the details for the sketch of the picture frame prop were finalized. To raise awareness of the company, a discussion started with a block party committee to have the company present at the event.

Outcomes/Results: The grant applications were completed and submitted. With this, the company's chances of receiving some type of monetary aid has increased. With the creation of the grant spreadsheet, the company will be able to quickly apply for grants next year. The picture frame prop's design has been decided on and manufacturing has commenced. The picture frame prop will be large and attention-grabbing. Talks between the block party committee and the company resulted in the company being given a spot at the event. The company will be able to educate the public and advertise the company's services.

Evaluation/Conclusion: At this time, the results of the grant applications have not been reported yet. With the influx of applications due to the financial strain brought on by the pandemic, the assessment period has been lengthened. With an event happening soon, the picture frame prop will most likely be used by people and posted on social media, increasing awareness of the company. The scheduled event will increase the awareness of the company and also help educate the public on CPR and bicycle safety. COVID-19 had a very negative impact on the company's ability to educate and advertise. Impaired by the safety restrictions, the possible marketing strategies were very few. However, with the rollout of the vaccine, there is now the possibility of in-person events. With these events slowly increasing, the company can start to help more people.

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Name: Angela Petrizzi

Position: Care Coordinator I, Outpatient Operations

Preceptor: Shana Ellsbury, Assistant Manager, Outpatient Operations

Agency: David H. Koch Center at Memorial Sloan Kettering Cancer Center, New York, NY

Work Duties: As a Care Coordinator for the 17th floor of the David H. Koch Center, I work under services including Head and Neck Care, Endocrinology, Cardiology and Consultative Services. My responsibilities vary from day to day, with front desk duties including greeting and checking patients in, screening for Covid-19, distributing proper paperwork and troubleshooting any patient care issues that may arise. Other duties include monitoring lab flow to ensure efficient communication between patients who have arrived and available techs, as well as scheduling appointments for the numerous doctors holding clinics on our floor.

Techniques: The main technique that had to be learned was how to navigate their computer system, which includes two primary platforms, Cadence (or EPIC) and CIS. Cadence is where you begin by checking patients in for their appointment, confirming identity, checking future appointments and making additional appointments. CIS is mainly used to check orders doctors have placed like bloodwork, cardiology tests, scans and future appointment requests. CIS is important, as orders must be placed and dated correctly in order for the patient to receive proper lab work, scans, etc. It is critical to double check that all information in one system matches the other, such as appointment and lab work dates.

People Skills: The job requires a significant amount of patience, time management, teamwork and communication in order to succeed. Working with patients who are dealing with a hardship requires our attention and compassion when assuring they will receive the best care possible. The job can get frustrating or overwhelming at times but remaining calm with patients who rely on us is a top priority. Learning how to communicate quickly and effectively with team members also makes job flow easier in terms of troubleshooting or helping one another out. The job can become very hectic at times, so learning how to prioritize tasks and clearly communicate to the patients about their care at MSK is key.

Results: In my short time at MSK so far I have grown into a more patient, independent and time-effective worker, as those are the skills it takes to be successful in this role. Each day I interact with patients and bond with familiar faces which hopefully brings a little bit of joy to the patients. While there is tons of work to be done in a single 10 hour shift, I have enjoyed taking the time to hear about a patient's day, give them my opinion on the best food in the cafeteria and make them laugh with a small joke. Going forward in my role, I want to continue to connect with as many patients as possible and provide the best care.

Lessons Learned: Patient care is the absolute top priority at MSK and every action of each employee is like a Butterfly Effect. One small positive interaction at check-in can carry a great deal of weight throughout the care of that patient. That's why each role is valued, ranging from Care Coordinator, to the managers and even the doctors as each employee plays a part in the overall goal of successful patient care. Another important lesson relates to teamwork and how constant communication with your team leads to the most success, including asking as many questions as needed, asking for help when needed and supporting a teammate if they need help or need a quick break. The team is all contributing to the main goal so it's critical that everyone supports one another.

Title: A Day in the Life: Promoting a Safe Patient Experience

Name: William D Pizzano

Preceptors: Dr. David M Pizzano, Dr. Wayne Chiampa

Agency: Roxbury Foot & Ankle Center

Purpose: Using video to promote how recent COVID-19 safety protocols were implemented at Roxbury Foot & Ankle Center.

Significance: During the COVID-19 pandemic, organizations that were successful in accommodating social distancing were able to keep their doors open for in-person services. At the commencement of s the pandemic, appointments at Roxbury Foot & Ankle Center were down by 75%. This number has been greatly improving since the center implemented safety protocols to limit exposure to COVID-19. A video advertisement showcasing the agency's efforts was created to boost appointments and make new/returning patients less worried.

Method/Approach: The steps included formulating a script that contained thoughtful and informational content, gathering video editing and production resources, scheduling physicians for participation, and the actual filming and final cut editing process.

Outcomes/Results: The first completed section of the video advertisement was the script. Since the script is the most essential part in any film, the script needed not to be too long, or too short. The main focuses and talking points were formulated with the owners, it then became apparent that a 5-section script would be sufficient. Each section offers a different topic, but all of which is related to how the agency operates during the pandemic. The script was written on Microsoft Word and did not exceed more than 400 words. After completing the "draft script" the owner, David, and physician, Wayne gave their stamp of approval. The video was shot on a day that the office was closed, and featured David and Wayne. The video editing was completed using a common Macintosh OS software called "iMovie". This process included adding word titles, soft music, transitions, trimming, and voiceovers. Before the iMovie file was exported to mp4 format; the final cut was reviewed by the owner and physicians. The final product is 8 minutes long and will be posted online and/or played on office televisions.

Evaluation/Conclusion: Aside from social media viewership, another way to evaluate the films' success is to check the appointment and spreadsheet books. If they see an increase in in-person visits, telemedicine visits, and cash flow; this can be directly correlated to our video advertisement. It would be appropriate to give the project a relook when our protocols change.

Title: The Impact of COVID-19 on the City of Milford and How to Handle it

Name: Marissa Pocevic

Preceptors: Deepa Joseph

Agency: Milford Health Department

Purpose: To aid with minimizing the impact of COVID-19 on the City of Milford and residents by creating graphs/posters, assisting in the vaccination effort, and contact tracing.

Significance: Throughout the pandemic, Milford has been in and out of what is known as the "red zone" for coronavirus cases. Contact tracing, data collecting, and vaccination clinics are tools necessary in fighting the COVID-19 pandemic. According to Dr. Bridges from Becker Healthcare, "Mass immunization clinics, where many people are vaccinated over a short period of time, are a critical tool in the public health toolbox to rapidly and efficiently provide vaccinations" (Bridges, 2021). COVID-19 vaccination clinics are an essential key in ending this pandemic. Another key role in assisting the end of the pandemic is contact tracing. Contact tracing notifies individuals who have been in close contact with someone who has tested positive for COVID-19. Data and informational resources are necessary to make those living in the city and city officials aware of positivity rates.

Method/Approach: The Johns Hopkins contact tracing course was taken for those contact tracing, which ensured each contact tracing call was done in an empathetic but still efficient and effective manner. The focus of the contact tracing was mostly school-based— the contact tracer called parents to inform them that their child had close contact with COVID-19 and tracked symptoms every day of quarantine. Next, at the clinic, the Vaccine Administration Management System (VAMS) was utilized which checked patients into the clinic. VAMS was also used to create 2nd dose appointments for those who had trouble booking an online appointment by themselves. Flyers were created regarding where to book vaccination appointments and where to find vaccines in Milford. These flyers were handed out to people who came to the clinic. Then, data from the vaccination clinic and CT DPH were turned into graphs. The graphs included a daily summary of COVID-19 in Milford, percent of the population in Milford vaccinated, and a graph of positive and negative COVID-19 test results. Mental health bulletins were created for school-aged children in Milford, on how to stay mentally well during COVID-19.

Outcomes/Results: As of 3/10/2021, the MHD has administered a total of 6,944 vaccines. 46.6% (25,545) of Milford residents have received their first dose of the COVID-19 vaccine (Pfizer, Moderna, and Johnson & Johnson)(CT DPH, 2021). Called 109 Milford school children's parents for initial contact interviews and symptom tracking using the ContaCT program. On 12/10/2020, Milford had 129 new COVID-19 cases, but as of 4/12/2021, Milford had only 16 new COVID-19 cases. This data showed a decline in COVID-19 cases. The mental health and COVID-19 bulletins reached all 17 schools in Milford.

Evaluation/Conclusion: The vaccination clinic has proven to be a success, by the large sum of people that have been vaccinated. The MHD continues to vaccinate CT residents twice a week. The CDC states, "70-80% of a population needs to be vaccinated to achieve herd immunity"--Milford is on track to achieve herd immunity (CDC, 2021). The decline in daily cases shows the efforts made are effective.

Title: Quality of Care for Patients with Chronic Conditions

Name: Kelsey Pollard

Preceptors: Spencer Kroll, M.D., PhD, FNLA

Agency: The Kroll Medical Group

Purpose: To analyze the quality of care for patients on Medicare who have two or more chronic conditions in order to improve satisfaction rates.

Significance: Chronic Care Management is for patients with two or more diagnosed chronic conditions, which places them at significant risk of death or functional decline. According to iSalus Healthcare, it is estimated that half of the American population manages at least one chronic condition and that about a quarter have two or more (*ISalus*, 2018). The overall goal is to achieve a better quality of life for these patients by making sure that they have a care team in place to support them and their chronic conditions. Studies have shown that CCM (chronic care management) services decrease depression, increase social activity, and promote patient engagement. Patients who participate in chronic care management become more aware of the resources available for them and have more hope for their conditions as they feel that they have personal advocates.

Method/Approach: A survey was done by the chronic care management team to assess the quality of care for current Medicare patients completing chronic care management. Each patient surveyed has been on chronic care management for a minimum of three months. Out of the 261 patients on chronic care management, 156 patients completed the survey, asking whether or not they feel that chronic care management has benefited their healthcare experience and why. The survey consisted of three responses: 1) yes, 2) no, and 3) other, as well as an option to add comments, explanations, and suggestions. Data was exported to an excel spreadsheet as it was collected.

Outcomes/Results: Of the sample size cohort (n=156), 127 (82%) reported yes, 27 (17%) answered no, and 2 (1%) reported a mixed response of yes and no. 96 patients (62%) chose to add comments, explanations, and suggestions. Of the open ended section 72 (46%) made a comment that CCM helps them with appointment scheduling and/or prescription refills, 43 (28%) mentioned that it has improved communication between their healthcare specialists, 27 (17%) said that it keeps them focused on their health, 9 (6%) commented that they do not feel the check-ins are necessary so often, 2 (1%) stated that they would like CCM questions were altered to reflect the Covid-19 pandemic.

Evaluation/Conclusion: More than three quarters (n = 127, 82%) of patients from the sample size cohort (n = 156), or 49% from the full cohort (n = 261), feel that chronic care management has benefited their healthcare experience. Monthly check-ins with patients regarding the chronic health conditions serves as an effective strategy to (a) help them schedule appointments and get prescription refills, (b) improve communication between various healthcare specialists, and (c) keep patients focused on their health. Chronic Care Management questions will be updated to better reflect the Covid-19 pandemic. Patients will continue to be surveyed bi-annually to ensure continued improvement of healthcare.

 $Citations: \underline{https://docs.google.com/document/d/1R39u5Np0tqME8t65TFFn35LAYZoo3o7PowEXK3OuePY/edit?} \underline{usp=sharing}$

Title: Creating Affordable Care: In-House Dental Saving Plan

Name: Kimberly Posada

Preceptors: Yana Nemtseva, DDS

Agency: Cambridge Square Dental

Purpose: To research and create a dental savings plan in order to provide uninsured dental patients with affordable and quality dental care.

Significance: In the United States, roughly 25% of Americans lack dental insurance. In New Jersey, only 63% of adults have private dental insurance benefits. Cambridge Square Dental provides dental care to a large population of uninsured patients. Dental care should be more affordable. This project aims to provide dental care to those patients who lack insurance at an affordable rate in order to ensure proper care is provided.

Method/Approach: Five dental savings plans from other offices in New Jersey were reviewed to determine the different options available to patients. Each sample plan was evaluated and compared to identify common qualities and differences. Each plan was then organized by pricing in order to determine an appropriate range of cost. All plans were also compared in the savings that were offered to determine a range of deals to offer patients.

Outcomes/Results: Using the lists created by organising the sample savings plan, a draft of a personalized dental savings plan for Cambridge Square Dental was created. The draft of the plan included multiple pricing options that ranged from monthly installments to yearly payments. The draft also included a list of multiple savings levels by procedure, which ranged from 30% on basic services to 20% on major services. The plan is still in the draft phase, but after modifications there will be a final complete written plan including a contract for patients interested. Once a complete plan is written and approved by the practice administrator, the enrollment period for patients will become available in June 2021.

Evaluation/Conclusion: Offering a dental savings plan to uninsured dental patients guarantees access to more affordable care. One challenge was accessing information about these types of plans and creating one to fit the needs of the patients and practice. Although plans are available elsewhere, each office and set of patients require a unique set of guidelines and details within these plans that best fit them. A final draft of the plan submitted to the practice gives varying options of coverage offered to patients, as well as multiple payment options in which the practice can select what is best for them. As the plan becomes available to patients in the near future, data should show an increase in treatment acceptance and completion. Not only should this allow for growth in the practice's business, but improvement in patient dental and overall health.

Title: Stakeholders' Perspectives on Funding and Purchasing Processes within a Self-Directed

Care Program: Challenges & Solutions

Name: Marisa Presby

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

Project Supervisor: Daniela Tuda, LCSW

Agency: Columbia University Medical Center, Department of Psychiatry

Purpose: To evaluate the barriers and facilitators regarding the purchasing process in the Self-Directed Care Pilot Program (SDC) in New York.

Significance: According to the CDC (2020), more than fifty percent of people will be diagnosed with a mental health condition in their lifetime. People living with a significant mental illness are at increased risk of poverty, homelessness, and difficulties accessing care which impedes their recovery (Folsom et al., 2005). SDC is a pilot program currently implemented within two sites in New York. The program provides funding and support to allow individuals with behavioral health needs to purchase goods and services (e.g., clothing, medical services, and etc.) that would not otherwise be covered by Medicaid. Through working with a support broker, clients set recovery goals and make purchases that allow them to have greater choice/autonomy in addressing their physical and mental health needs and quality of life.

Method/Approach: Key stakeholders (e.g. SDC participants, support brokers, program leadership, state agency staff; (N=29) completed semi-structured qualitative interviews by phone or virtually. Interviews explored their perspectives regarding the SDC pilot program. Interviews were audio-recorded, transcribed, and de-identified. A codebook was developed consisting of common concepts/ topics that arose during the interview (e.g., funds/budgets, agency context, staffing, impact, challenges). The interviews were then coded and analyzed, along with memos written dedicated to certain themes among the interviews.

Outcomes/Results: Stakeholders described challenges regarding the SDC program's funding and budget policies. Stakeholders acknowledged the existence of some formal guidelines regarding SDC budgets and funding limits on specific items (e.g., computer, transportation), but there was a lack of clarity regarding how stringently those should be applied. Support brokers and participants expressed some confusion related to variability in approvals and denials, with the client in particular wanting to receive more information on why certain purchase requests would be denied. Another challenge was the requirement that clients complete purchases within five days of receiving funds, particularly for those clients who lacked access to adequate transportation. Challenges regarding the credit card that clients had to use for purchases included lack of universal acceptance, denied purchases due to card limitations, inability to access the card balance/transactions, and delays in reimbursement where clients spent their own money up-front. Stakeholders' suggestions for improvement included having direct access to cards' transaction histories, and more frequent communication with the fiscal intermediary as a means to better understand funding decisions.

Evaluation/Conclusion: Overall, stakeholders described SDC as a valuable and effective program that helps participants with their wellness goals and improves their quality of life. Suggestions to improve and streamline the process of making and tracking purchases could facilitate program expansion.

Title: Improving Safety and Quality Care During COVID-19 Pandemic

Name: Samantha J. Ramirez

Preceptors: Françoise JeanLouis, Manager Ambulatory Quality and Patient Safety.

Agency: Hackensack Meridian Health

Purpose: To maintain the safety of the employees and patients in the ambulatory and speciality departments during the COVID-19 pandemic.

Significance: The COVID-19 pandemic has taken thousands of lives and infected millions across the world. On November 15th, 2020 the CDC reported that there were more than 216,000 confirmed COVID-19 cases among healthcare workers in the United States (Verbanas, 2020). This evidence shows that there is an internal issue within the healthcare system that is lacking to help prevent the virus within healthcare settings. In order to continue assisting healthcare employees in infection prevention, we will be providing education on proper Personal Protective Equipment (PPE) donning and doffing, providing resources such as CDC PPE guidelines, education via an employee portal. bi-weekly review, and infection control checklist will track necessary requirements to enhance safety of the team members and the patients.

Method/Approach: This project was conducted between January 20th and April 28th through both virtual and inperson methods. Environment of care, education and resources were provided to the organization's team members. All clinical and non-clinical team members had to attend a mandatory infection control webinar that explained the process and provided the appropriate resources via the company website and portal. The steps involved in this process included reviewing the environment of care checklist with team members and their leaders, scheduling an initial infection control in-person walk-through to provide further education and training, conducting random walk-in visits to assure that the workflow education was followed by the practices.

Outcomes/Results: Since the start of the environment of care and contact tracing initiative, we were able to combine the data from the beginning of the program until the end of March. Data was collected on a weekly basis, as of March 22nd there were 14 team members out of work in the physician services division. This was lower than the 24 team members out of work on February 2nd.

Evaluation/Conclusion: We will continue to evaluate this initiative on a bi-weekly basis by continuing to provide the appropriate resources to the team members and education as needed. We can conclude that since the beginning of infection control, we have seen a decrease in team member to team member COVID-19 infection and team member out of work rates. We have also selected a random selection of team members within the Ambulatory and Specialty sector and asked them to participate in a survey to determine if they are satisfied with the programs initiative and education. This will help us determine if the program will need to be reevaluated in the future for other disease prevention methods.

Title: Intravenous Drug Use of MSM and Transgender Women

Name: Coree Rhem

Preceptors: Dr. Kristen Krause, PhD, Deputy Director of CHIBPS

Agency: The Center for Health, Identity, Behavior, and Prevention Studies (CHIBPS)

Purpose: To analyze the intravenous drug use of racially and economically diverse men aged 18-25 who have sex with men (MSM) and transgender women in Newark, New Jersey and surrounding areas compiled from the pilot research study (P18).

Significance: Substance use remains prevalent among MSM and transgender women in the United States. Injection Drug Use (IDU), alcohol, and stimulants are independently associated with the increase of risk behaviors that are associated with HIV acquisition among transgender women and MSM (CDC, 2018). The Center for Health, Identity, Behavior, and Prevention Studies (CHIBPS) provides free screening for HIV to identify the sexual health and risk factors to prematurely address the risk factors relating to mental health, sexual risk-taking, and illicit drug use in vulnerable populations. This project will analyze the significance of demographics in relation to the intravenous drug use of MSM and transgender women in Newark, New Jersey.

Method/Approach: To analyze the syndemic production among MSM and Transgender women, 77 participants were interviewed on syndemics relating to sexual health, mental health, sexual risk taking, and illicit drug use among the vulnerable population from 2018-2020. Data collected from the 77 participants of the research study was imported into SPSS for analysis of variables specifically pertaining to the participants demographics and intravenous drug use. From this analysis, we sought to observe and analyze the demographics of the participants who reported intravenous drug use to researchers during the study.

Outcomes/Results: Of the 77 participants, 12 (15.6%) reported IDU in their lifetime. Of those participants, 20% who reported their highest level of education of high school diploma or GED reported yes to IDU, 16.9% of those who were born in the US reported yes to IDU, 16.3% identified as Black non-Hispanic reported yes to IDU, and 15.8% who identified as Hispanic/Latinx also reported yes to IDU. Demographic data relating to income and housing found that 13% reported an income of \$0 to \$4,999, 15.4% reported an income of \$5,000 to \$9,999, 13.9% reported current housing of family apartment/house, 27.3% reported living in their own apartment/house, and 11.1% reported living in a dorm, residence hall, or school housing also reported yes to IDU. Demographic data relating to sexual behavior and gender found that 14.5% reported having sex with men only in the past six months, 27.3% identified as transfemale, 7% identified as male, and 100% identified as female reported yes to IDU.

Evaluation/Conclusion: Based on the results of the study, we can conclude that intravenous drug use is prevalent in MSM and transgender women within the sample size. Demographic data can be useful to analyze trends, risk factors, and syndemic production among the target population. The results analyzed from the small sample size only gives insight to a fraction of the vulnerable population and can only be truly substantiated from a larger sample size. The demographics of the participants that reported yes to IDU can be used to aid in the development of programs that aim to address drug use, treatment, and prevention of MSM and transgender women communities in Newark, New Jersey.

Title: Mental Health Effects on College Students & Data Driven Solutions

Name: Victoria Ricco

Preceptors: Dr. Gloria Bachman; Dr. Allision Cabinian

Agency: Women's Health Institute at Robert Wood Johnson

Purpose: To analyze the correlation between ageism and stress factors with mental health, specifically in college students.

Significance: Ageism is prevalent amongst most adults. Mental health in college students specifically seems to aid in this process. When converting to a healthier lifestyle mentally and physically, one's lifespan is bound to increase. Over 90,000 people in the U.S. are over 100 years old (Statistica, 2021). To fight the aging process, a proactive approach is necessary. The correlation between mental health and ageism/rejuvenation is strong. College students experience stress frequently and seem to be showing less signs of rejuvenation. The deterioration of mental health is a result of the stressors college students face. Challenges include academic success, well-being, and support (Ascione, 2021). Incorporating the concept of ageism will promote further research on new tools in combating the early stages of adulthood.

Method/Approach: A case report was developed to understand lifestyle factors behind ageism and rejuvenation. After the interview with Joan Mitnick, key information on her 104-year-old mother was obtained. Her mother has lived a long healthy life, with little to no medical complications. Exercising, eating right, and maintaining a healthy mindset all lead towards a longer lifespan (Ricco, 2021). These are all essentials that college students struggle to balance, which leads to mental health disparities. Key factors such as socioeconomic status, relationships, academics, social habits, and healthy behaviors were taken into account when observing mental health issues in young adults in different studies. A study done by the JED foundation recorded data in a survey to 200 college aged students during COVID-19 and inquired about their hardships. Information surrounding mental health symptoms were noted and then analyzed.

Outcomes/Results: The JED foundation took a recent survey with a sample size of (n=200), indicating that 63% of students' emotional health was worsening (2020). Findings further included 82% of students felt anxiety, 68% experienced social isolation, 60% had difficulty coping with stress, 19% had suicidal thoughts, and 62% could not concentrate. Results from the JED study concluded that 71% of students said they would utilize mental health services if granted access.

Evaluation/Conclusion: Ageism can be prevented for a better quality of life long-term. Lifestyle habits and science contribute to the overall well-being of a person. These factors are comparable to mental health issues and stress that result from college students balancing activities and relationships, while adjusting to a new environment (University HQ, 2021). The work life balance is difficult for a young adult. Financial issues such as tuition for school bring about significant amounts of stress (Gross, 2019). At Rutgers, there is still a certain stigma surrounding mental health and its effects on people. Rutgers CAPS, where mental health services are provided, should advertise more for those who are unaware. Implementing programs that encourage more options for healthy lifestyle changes and time management should also be done to educate and aid college students. Sources

Title: A New Tool for Analyzing the Content of Indoor Tanning Salon Websites

Name: Kristopher Roberts

Preceptors: Direct Supervisor: Mariam Rashid, MPH, Research Associate

Project Supervisor: Mary Hrywna, PhD, MPH, Assistant Professor in Department of Health

Behavior, Society & Policy

Agency: Center for Tobacco Studies

Purpose: To create a coding guide that will allow researchers to collect data on the business and marketing practices of tanning salons.

Significance: The number of adults annually treated for melanoma in the US has doubled in the past 15 years, and the incidence rate is projected to double by 2030 (Gershenwal & Guy, 2016; Guy, Watson, Richardson, & Lushniak, 2016; ACS, 2019). Evidence shows that the use of indoor tanning beds significantly increases the risk for skin cancer (Boniol, Autier, et al., 2012; Wehner, Chren, Nameth, et al., 2014; Lazovich, Vogel, et al., 2016; Wehner, Shive, et al., 2012). To reduce the use of tanning beds and combat this increase in new skin cancer cases, the effects of environmental factors, like tanning salon marketing and business practices, must be analyzed to inform interventions. This project aims to provide researchers with a tool to collect and organize data needed for this.

Method/Approach: A total of 369 tanning salons were registered as active on the New Jersey Department of Health's registry of indoor tanning facilities. Based on previous experiences with content analysis and other studies of indoor tanning salons, a coding guide and coding sheet were developed to assess the websites of these registered indoor tanning salons and collect data about their use of tanning machines, pricing patterns, promotions, purchasable products, and COVID19 protocols. Two trained staff members double-coded 10 websites to pilot test the coding guide and sheet. Areas of disagreement were discussed and that discussion was used to modify the coding guide.

Outcomes/Results: The coding sheet contained a total of 29 questions, the majority of which are closed-ended, multiple-response questions. The first few questions asked about COVID protocols, appointment creation processes, and type of salon (chain or independent retailer). The other questions focused on the services and promotional content listed on the salon's website. These questions asked if the salon's website lists the tanning services offered, available price plans and packages, membership options, discounts and promotions, products available in the salons store, tanning tips, social media accounts, health benefit claims, and legal or general warnings and restrictions. Questions concerning the price of tanning services or the health benefit claims listed on the website contained open-ended text boxes to allow coders to record detailed responses. The coding guide provides specific instructions to advise coders on how to assess each element of the websites' content, and the coding sheet was programmed in Qualtrics to allow for efficient data entry. The use of a close-ended, multiple response format where applicable allowed the data recorded using the coding sheet to require minimal editing when extracted.

Evaluation/Conclusion: The coding guide will inform the process for coders to collect data concerning the prevalence of certain pricing practices, promotional practices, health claims, and risk warnings on tanning salon websites. The data collected and organized using this coding guide will also be useful for future studies, as well as targeted interventions and policies intended to reduce the use of indoor tanning beds.

Title: Assessment on Vulnerable Populations for COVID-19 Testing

Name: Gaby Rodriguez

Preceptors: Kelly Anderson-Thomas, Coordinator

Agency: New Jersey Department of Health

Purpose: To analyze the vulnerable populations and the lack of testing in those areas since the "COVID-19" pandemic started.

Significance: The lack of testing accessibility has contributed to the number of deaths since the pandemic started in 2019. The health and socioeconomic disparities in certain counties of New Jersey have impacted their access to Covid-19 Testing. The Department of Health analyzed data collected from a community survey to gain insight as to the reasons why testing sites are struggling to serve vulnerable populations. Based on this information further recommendations and strategies will need to be created in order to expand testing and control the viral spread within these communities. The Covid-19 Task Force group has identified reasons such as families with no medical insurance, shortage of testing sites, community trust, and misguidance on the importance of testing.

Method/Approach: Data was analyzed after a survey was created and released to the public by mail and text. The Health Informatics Department along with the Office of Minority and Multicultural development worked together to create a sample survey that was distributed to members of the vulnerable communities in hotspots where there were higher rates of infections. Questions were generated from topics such unemployment, level of income, level of education, housing & transport challenges, and age of household members. The reasons for the lack of testing were equally divided among the population and ranged from lack of insurance to few places where testing was available.

Outcomes/Results: Reaching vulnerable populations is challenging during any public health crisis. It requires public and private collaboration, funding, and imagination. Testing in these vulnerable areas is extremely important since they are at high risk of severe disease or death from Covid-19.

There is an urgency in desert testing and few resources to address their needs. The Department of Health must take into consideration the broader challenges and develop community partnerships that will result in success. These vulnerable populations already have a fragile relationship with access to medical care. Options such as mobile testing vans, tests with quicker turnaround times, and building community trust can be the solutions needed to testing the underserved.

Evaluation/Conclusion: This project's conclusion was collecting the data needed to back up the findings in order to get the funding needed to aid vulnerable populations. Underserved communities will need a collaborative network of primary care and surrounding hospitals with programs that have adequate capacity for testing. Although there are limitations such as administrative operations, cultural beliefs, and willingness to be tested, these can all be addressed by providing long-term community engagement that starts in the school system.

Title: Reaching Minority Students with Identi-Fi at VPVA

Name: Syd Rosen

Preceptors: Jonel Vilches, Victims of Crime Act Advocate

Loren Linscott, Director

Agency: The Office for Violence Prevention and Victim Assistance, Rutgers - New Brunswick

Purpose: To create a more welcoming and accessible environment for minority students at The Office for Violence Prevention and Victim Assistance (VPVA) through the creation of relevant social media posts, and facilitation of discussion groups to identify their needs.

Significance: According to the 2018 iSPEAK Campus Climate survey, Rutgers students experience sexual and domestic violence at rates similar to those at universities nationwide. Twenty-five percent of undergraduate women and seventeen percent of undergraduate men surveyed had experienced sexual violence since coming to campus, and thirty-two percent and nine percent experienced sexual violence before coming to Rutgers, respectively. While students were somewhat aware of campus resources like VPVA, and had a positive view of how the university would handle a sexual violence report, there were disparities within minority groups, with racial minority students less likely to disclose. (Seabrook, R. C., et al., (2018). Results of the Rutgers University - New Brunswick 2018 Campus Climate Assessment)

Method/Approach: The goal of Identi-Fi was to help students feel more comfortable with VPVA, using both culturally-relevant social media outreach and discussion groups, and by learning what some of the barriers and specific needs minority students face to improve cultural competence at VPVA. Discussion groups were held in partnership with the cultural centers, where students anonymously responded to questions about topics related to work done at VPVA, including cultural views on gender and sexuality, experiences using student services, and knowledge of terms related to interpersonal violence. Social media posts were made prior to and during the groups, discussing topics including intergenerational trauma. Finally, personal experience with survivors occurred during weekly confidential advocacy shifts.

Outcomes/Results: Qualitative findings regarding the needs of minority students, and what can be done to support them, were presented to staff at CAPS, VPVA, Dean of Students, and other relevant bodies in early April. Conversations with minority students showed hesitancy accessing student services, largely due to poor experiences they had heard about from other students. There were unique cultural factors within each group that contributed to students' experiences with violence, though these were not monolithic within cultural groups. Additionally, though the root causes, and therefore the method of intervention needed, were different, many students from across cultures addressed similar themes, such as lack of connection to family, lack of discussion about mental health, and cultural misogyny.

Evaluation/Conclusion: The discussion group model showed promise both in helping the office to understand the needs of minority students, and making minority students feel more comfortable at VPVA. outreach with these communities needs to continue, as statistically they are not being reached the same way white, cisgender, heterosexual students are. This outreach needs to be ongoing and informed by real student experiences, as done here. Evaluation will include examining if there is a change in the demographics of VPVA intakes and ongoing counseling clients, as well as qualitative feedback both from informal interactions and potentially more formal discussion groups.

Title: The Impact of a Global Pandemic on U.S. Healthcare

Name: Alexander Saber

Preceptor: Patti O'Brien Richardson

Agency: Rutgers University - New Brunswick, NJ

Purpose: To assess the extent to which pandemics, specifically COVID-19, affect the U.S. healthcare system including hospitals, medical workers, and medical resources

Significance: Over the past year, COVID-19 has resulted in more than 29 million cases and killed more than 500,000 people living in the United States. Preventive measures such as tracing, testing, and isolation were not carried out in a satisfactory manner and resulted in the current situation (AJMC, 2021). The US response to the virus was delayed and also unsatisfactory, leaving many millions in an extremely hard situation, whether it be facing the virus or other hardships brought on by the pandemic. The issue remains that our healthcare system is not prepared to meet the demand at this time. This puts strain on the medical field due to the fact that the general population and even members of the medical field are all equally in danger of contracting and dying from the disease. This research will make clearer what those problems are so that they can be acted on in a more organized fashion.

Method/Approach: This study was conducted through research of various existing sources that contained useful data to draw conclusions on the state of COVID response undertaken in the United States, such as a timeline of COVID events that took place over the last year. A review of several plans and policies was taken in order to study the effectiveness of those programs. A study of the procedures other countries took was also taken in order to compare the results of their preparation and reaction in comparison to the actions of the United States. Several different facets of the crisis were looked at including lockdown procedures, testing, tracing, resource management, and healthcare worker safety.

Outcomes/Results: There were many shortcomings by the United States government that contributed to a poor response. It was discovered that there were, in fact, preparations and plans in place to deal with a pandemic of this scale, should one occur. Yet, these measures were never put into place at the wishes of the presidential administration in order to avoid a panic or negative public perceptions. This led to large outbreak events across the United States and a rising number of cases, which carried itself from 2020 into the next year. A lack of strong leadership throughout the pandemic kept states from taking the necessary steps to curb the virus, thus leaving many states in a state of disarray, leading to a rise in cases. It was seen that other countries with stronger governments were more prepared to deal with such an event and were able to curb the virus in much shorter periods of time. The United Stateshas suffered the highest number of deaths due to COVID-19 and is still going through the consequences.

Evaluation/Conclusion: While the time to act appropriately passed some time ago, the United States must still act responsibly to finally end the pandemic in the country. The nation should be willing to learn from the mistakes of the past and take lessons from the other countries that have had much greater success in dealing with the virus. Stricter regulations must be put in place to end the virus in the areas that have been affected most and the government must be willing to enforce them. In the future, this ordeal should be a grim lesson as to what happens when a government neither prepares, nor takes seriously what happens when a pandemic hits.

Title: The Development of the Intensive Program for Domestic Violence Victims

Name: Monica Said

Preceptors: Direct Supervisor: WAFAA Saad, Executive Director

Agency: Women and Families Ascending Association (WAFAA) -Paterson, NJ.

Purpose: To improve the intensive program for domestic violence victims, particularly for women, including physical, mental, and emotional, counseling sessions to help victims recover from domestic violence consequences and help them overcome this period of their life.

Significance: Researchers state that the exposure of women to different types of violence, such as stalking, solicitation, rape, and sexual assault, negatively influences women's mental health status. The National Violence Against Women survey reported that 52% of women are physically assaulted, 18% of women are rape victims, and their partners physically abuse 8% of women. (Jordan, Campbell, & Follingstad, 2010) Further, almost more than 3 out of every 100 women suffer from Physical assaults, and almost 25% of Americans in the US suffer from couples' violence. (Jordan, Campbell, & Follingstad, 2010) Moreover, WAFAA aims to help domestic violence victims by providing physical evaluation sessions to treat the outcomes of domestic violence.

Method/Approach: Violence Intake applications were given to five participants of WAFAA's shelter clients by shelter workers and clients' caseworkers due to their ability to deal with them face to face during an in-person examination. Physical screening displayed the victim's bodily condition, how the incident affected her, and what type of support the victims requested from WAFAA Organization. Organizational partnerships with hospitals, clinics, and other outreach programs provided medical support for the survivors, such as the specialists' referral, medications prescriptions, and surgical intervention if needed. Additionally, WAFAA Organization provided job opportunities and supported the victims with life's expenses like food and finding an adequate and safe apartment for the recovered women to get back to their normal life. WAFAA provided attorney services for legal needs, psychological counseling sessions, and anger management sessions.

Outcomes/Results: Four out of five survivor-women received a physical evaluation, which was four to five sessions according to what the victim needed to fully recover from a physical trauma resulting from domestic violence. Violence intake applications helped to specify the health condition of victims; hence, the effectiveness of evaluation was measured and analyzed by survivor women rescued from domestic violence and exceeded the trauma by starting their usual life again away from the toxic environment.

Evaluation/Conclusion: Continuation of the project will be followed by Mrs. Wafaa, the director of the organization, and the caseworkers responsible for each case in the shelter. With the help of WAFAA Organization, survivors moved to their apartment and found a new job which helped in achieving their children's needs and living expenses. The Physical Evaluation Report would have been more effective with better outcomes without the restrictions and precautions that WAFAA and Rutgers University took for the COVID-19 pandemic. In the future, a physical evaluation program will include more examination and treatment for the survivors, and it may also be sponsored by the government, health insurance, and partnership with outreach programs.

Title: Virtual Livestrong Program Evaluation for Cancer Survivors

Name: Komel Sajjad

Preceptors: Michelle Jansen, MS, MAT, Community Cancer Control Specialist

Agency: Rutgers Cancer Institute of New Jersey

Purpose: To evaluate a 12 week long virtual Livestrong program's effectiveness for cancer survivors.

Significance: Research over the last few decades shows that a top concern among cancer survivors is returning to physical activity and exercising after they have received treatment ("Livestrong at the YMCA," 2020). During the COVID-19 pandemic, a large number of physical activity programs were cancelled, so many survivors haven't been able to get active. The Rutgers Cancer Institute of New Jersey has teamed up with two local YMCA's to promote a virtual Livestrong program, a 12-week long initiative for cancer survivors. This project evaluated the virtual program's effectiveness.

Method/Approach: A summative assessment of the program was conducted via weekly electronic evaluations on Qualtrics. The evaluation consisted of 8 questions based on the program guide and Borg RPE scale, and were intended to serve as a tool to help evaluate the program's implementation and success. The evaluations were distributed to 2 groups that were a part of the program, which consisted of a total of 41 participants. Along with the weekly evaluations, there was an initial baseline assessment conducted prior to the start of the program, data for the project was collected for 2 weeks between April 7, 2021 and April 17, 2021. Evaluation questions were based on the Borg RPE scale, which asked participants to rate how they felt on a scale of 1-10 during the warm up session, upper body exercises, and lower body exercises. On the Borg scale, 0 means that it is a resting state, 1 means that it is easy, and 10 means that it was really hard, this project, focused on the upper body exercises.

Outcomes/Results: The baseline assessment evaluated a total of 53 participants. By the end of week 2, there were a total of 41 active participants, (an attrition rate of 24.1%). Based on the baseline assessment, 36 people out of the 53 that answered stated that they did not exercise regularly. Results of the Borg RPE scale questions were analyzed to see if these participants found the exercises difficult or not. During week 1, 25 participants answered the weekly evaluation. Nine out of the 25 people found the upper body exercises to be level 5 or harder (36%) on the Borg scale. During week 2, 12 people answered the weekly evaluation. Five out of the 12 people found the upper body exercises to be level 5 or harder on the Borg scale (41%).

Evaluation/Conclusion: The program pushes participants to get active, and it is effective in allowing participants to gain physical activity, as well as work out efficiently from home, since they are finding the exercises moderately and really challenging. Future evaluations should be conducted for the entirety of the 12 week program to assess whether or not participants continued to be challenged by taking part in resistance training exercises and physical activity. This is a limitation of the study because data in future evaluations should be collected until the end of the program to analyze the program's full effectiveness, as well as track participants' results on the Borg scale throughout the 12 weeks. This can allow researchers to gauge participants' progress and needs while taking part in a virtual program. Further evaluations should continue to show varying results from the Borg scale, as the workouts in succeeding weeks continue to increase in intensity, thus allowing participants to gain strength and endurance gradually over time.

Link to google doc with citations: https://docs.google.com/document/d/1WsNoicYDa-pGDAGqjDvOBMwjAmU4-brY0fihgSU1rBg/edit?usp=sharing

Title: Increasing Access to Social Service to the Homeless Population in New Brunswick, NJ

Name: Nerissa Santa Cruz, Associate Director of Operations at Archangel Raphael's Mission

Preceptors: Kelsey Lynch, Co-Founder and Intern Advisor of Archangel Raphael's Mission

Agency: Archangel Raphael's Mission

Purpose: To increase the access to social services such as health and hygiene programs to people experiencing homelessness in New Brunswick, New Jersey

Significance: Homelessness, food insecurity, access to hygiene services, and proper sanitation are public health issues that impact communities. In the past four years, the homeless population has increased by over 45% in Middlesex County (Kratovil, 2021). About 79,140 experience food insecurity in Middlesex County (Feeding America, 2020). Archangel Raphael's Mission (ARM) aims to provide health and hygiene services to those who need it. The lack of access to hygiene products and proper sanitation allows the homeless population to be more susceptible to contracting communicable diseases.

Method/Approach: Outreach, data collection, fundraising, and COVID-19 health education has enabled ARM to maximize the potential of several programs. Expanding ARM's social network and connections included requests of donations and volunteers through Rutgers University faculty and student organizations, and increasing social media engagement with supporters, the local community, donors, and partners. Consistent data collection through Google Forms has allowed ARM to track instances of giving, and monitor service inventory, which includes meals, personal protective equipment, clothing, care packages, and health consultations, such as COVID-19 vaccination flyers. Fundraisers highlight ARM's mission, while raising money for current and future endeavors, such as the Mobile Shower Unit.

Outcomes/Results: Online presence and social media engagement increased by 300% from December 2020 to April 2021 on ARM's social media platforms, through donation and volunteer requests, education of public health crises, relevant current events, and world health celebrations. Of the total hygiene-related donations ARM received (n=291), 80 care packages (27%) came from Rutgers University Alternative Breaks, 116 grooming kits (40%) came from Bloomsbury Simply Grace Methodist Church, and 95 hygiene kits (33%) were donated from other local churches. Money raised from fundraisers (n=\$529.83) consisted of \$400 (75%) donated from Rutgers University faculty members, \$87.12 (16%) from Chipotle, \$25 (5%) from the CVS Corporate Giving Program, and \$17.71 (3%) from Panera. Data management and analysis concluded that through service, 218 instances of volunteerism, 410 volunteer hours, 37 handwashes, 332 PPE, 491 pairs of socks, 299 care packs, 23 feminine hygiene products, 252 health consultations, 1,282 meals, and 756 clothing articles were provided to clientele in 2021 thus far.

Evaluation/Conclusion: Creating an online presence through ARM's social media has increased the awareness of public health issues that impact communities. Limitations include the struggle to provide healthy and nutritional meals to clients, since food is donation-based. A centralized database should be developed and implemented so that data collection can be performed more efficiently. Ongoing data monitoring and tracking of instances of giving, service inventory, and volunteer management should be executed on a weekly basis to ensure continued accuracy of data analysis in the future.

https://docs.google.com/document/d/1zkv0PNIUF6x3rii0ZW4szW0tCvr3G3Oxt-hz-63dw-Y/edit?usp=sharing

Title: TELEmed Genetic Consultation Informational Video

Name: Marta Savchuk

Preceptors: Georgine Lacey, Executive Director

Agency: New Jersey Perinatal Associates

Purpose: To assist with the organization and execution of conducting genetic consultation appointments via Zoom and to create a video that will communicate to patients what is to be expected at time of appointment.

Significance: Quality health care during pregnancy and childbirth can greatly decrease the rate of pregnancy related mortality. Yet globally only 64% of women receive antenatal care four or more times throughout their pregnancy (WHO). Beginning in early 2020 and continuing still to this day, the world has been experiencing the devastating effects of a global pandemic. Because of this, accessing health care safely during pregnancy, has become a large concern. New Jersey Perinatal Associates now conducts all of their consultation appointments virtually. This project is allowing for women to get access to proper healthcare without increasing their exposure and putting themselves and their child at risk.

Method/Approach: Over the course of two months it has been observed what aspects of virtual appointments patients have been having the most trouble with. In an initial email that is sent out to all scheduled genetic consultation patients, a phone number is provided that could be called if any questions were to arise. The calls were monitored and the types of questions that were asked and their frequency was noted in an excel file. The two major aspects that patients had the most trouble with were; understanding the workings of Zoom and the submission of required documents. This made it clear what information was most important to mention in the informational video.

Outcomes/Results: Knowing which aspects patients have the most trouble with in regards to their virtual genetic consultation appointments will allow for the creation of a more effective informational video. The video will be short, including step by step instructions on how to both download and navigate Zoom as well as submitting required documents. The video will use both visuals and audio in order to achieve the best results.

Evaluation/Conclusion: The effectiveness of the informational video will be evaluated by monitoring the number of calls that come in. Before the video, on average 20 calls a day were received. If the number of calls does not decrease then it will be known that the informational video was not successful. The success of the informational video will be measured by the percent decrease in daily calls. The higher the percentage the more successful the informational video was in informing patients.

Title: National Caregivers Conference 2022

Name: Sabeeka Sayani

Preceptors: Direct Supervisor, Renata Svincicka, Community Health Manager

Agency: The Family Resource Network

Purpose: To organize a national conference as a space for learning, collaboration, and networking between health professionals to provide services that improve caregivers' quality of life.

Significance: With the 65+ age group expected to double to 70 million people by 2030, it is becoming increasingly important for the government to support caregivers. Having to rely more on family caregivers than ever, they require more support than ever before. Caregivers assist more than just the individual they are caring for, they support the overall health system and prevent overpopulation in Nursing Homes and other Assisted Living Facilities aimed towards serving the elderly and individuals with disabilities. This support allows them to preserve their critical role as caregivers (Family Caregiver Alliance, 2021). The Family Resource Network provides support to unpaid family caregivers throughout New Jersey. They provide access to support groups and connections to appropriate resources. By organizing the National Caregivers Conference 2022 (NCC 2022), we hope to collaborate as a nation and improve services for caregivers. The Family Resource Network aims to hold NCC 2022 outside of New Jersey, in Pennsylvania, to expand the network nationwide.

Method/Approach: The planning committee constructed a list of potential themes based on caregivers' lives and the reemergence of normalcy after COVID-19. Next, the targeted potential sponsors were determined as Health Care Companies, Pharma Companies, Private Practices, The New Jersey Chamber of Commerce, National level For-Profit and Nonprofit Organizations, and National Hospitals/Medical Companies. Following this, attempts to find a keynote speaker were made as a means to attract the targeted audience. Research exploring potential keynote speakers was conducted through speakermatch.com with the keyword "caregiver." These aspects were assembled within a document to be discussed in future meetings to plan the conference.

Outcomes/Results: After the event, conference organizers will provide attendees with a post-event survey created based on the agenda and quality of the event as a whole. Based on the NCC 2020 survey responses, participants requested a guidebook which will be provided this year upon arrival and sign-in. This guidebook will consist of resources and contact information of organizations associated with the NCC 2022.

Evaluation/Conclusion: The goal of this conference is to come together for a greater cause. Hopes are to bring together all types of organizations to provide services for caregivers nationwide. Speakers will inspire the targeted audience to coordinate a complete set of services, facilities, and resources for caregivers to improve their quality of life. The planning committee is working towards hosting the conference with all the necessary safety measures in place with a hybrid experience and will provide virtual access for individuals who are unable to attend physically. Ultimately, the aim is for the organizations to build long-term relationships and continue coming together following the conference to keep improving services for caregivers.

Title: The Self-Directed Care (SDC) Pilot Program in New York State: Challenges to

Potential State-Wide Implementation

Name: Allyson Sciblo

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

Agency: Columbia University, Department of Psychiatry

Purpose: To identify and assess potential challenges that may impact state-wide implementation of the Self-Directed Care (SDC) program in New York State.

Significance: People who experience significant behavioral health needs (e.g., mental illness, substance use disorders) are often unable to access a wide array of resources and support services that would facilitate their recovery. Through a pilot program, a subset of Medicaid enrollees with significant behavioral needs participating in a Health and Recovery Plan (HARP) in New York State were also enrolled in a Self-Directed Care (SDC) program. Implemented at two sites in New York, SDC offers financial assistance and support to purchase goods and services (e.g., gym memberships, furniture), not otherwise covered by Medicaid, to enhance self-directed progress towards wellness and recovery goals.

Method/Approach: SDC program stakeholders (e.g., state oversight/fiscal intermediary staff, pilot site agency staff, and SDC participants; N=29) participated in semi-structured interviews that lasted approximately 60 minutes and were conducted remotely via telephone or video conference. Each interview was audio-recorded, transcribed verbatim, and anonymized. A codebook was developed that identified topics and concepts that occurred across interviews and consisted of terms such as funds/budget, challenges, sustainability/scale up. Interviews were coded line by line in order to group and analyze excerpts related to specific evaluation objectives, with themes subsequently developed to summarize stakeholders' perspectives regarding SDC.

Outcomes/Results: Stakeholders reported that challenges to state-wide implementation of SDC included complexities stemming from the lack of clearly-specified and communicated policies, procedures, and practices, particularly regarding the review and approval of purchases by state fiscal intermediaries. Additionally, while purchase denials became less frequent over time, stakeholders – particularly clients – noted that a lack of sufficient information and understanding of the reasons behind denials was a challenge. Further, delays in approvals or denials could occur when fiscal intermediaries were unclear on how to proceed. This resulted in the need for consultation with various individuals in state agencies to make an informed decision. Another challenge was stakeholder uncertainty regarding whether or not the program was intended to be open in terms of clients' length of tenure or more time-limited. Finally, stakeholders differed in their definitions and understanding of program success, in particular highlighting the need for developing mechanisms that would facilitate sharing success stories from the ground up.

Evaluation/Conclusion: The SDC program demonstrated feasible and positive outcomes by assisting participants to achieve wellness-oriented goals and improve quality of life. Stakeholders highlighted potential challenges that may impact program expansion and state-wide implementation, while also suggesting strategies to enhance program operations, stakeholder communication and collaboration, and measurement of program success.

Title: Social Work Intern

Name: Shratha Senthilkumar

Preceptors: Wafaa Saad, Certified Social Worker & Anger Management

Agency: Women and Family Ascending Association (W.A.F.A.A)

Purpose: To identify and create awareness about domestic violence around the northern New Jersey area, by providing assistance to the clients at the shelter and to help with submitting grants which would benefit the organization.

Significance: The World Health Organization reports that the proportion of women who had ever experienced physical or sexual violence ranged from 15% to 71%, with the majority between 29% and 62% (Kaur & Garg, 2008). Consequently, it appears that more than one-third of the acts of domestic violence in the State of New Jersey in 2016 occurred in Paterson. WAFAA is a non-profit organization, which intends to continue to provide counseling and referral services to crime victims and witnesses. The organization also intends to expand its services to that group of people by addressing specific needs of that community. Those needs include a 24/7 hotline for support counselling, Referrals for assistance, food pantry services, and anger management classes for its clients.

Method/Approach: The Domestic Violence Research Project was conducted by Dr. Sean Willson from William Paterson University and Dr. James Williams from Montclair State University, accompanied by WAFAA Organization. The scope of this project was to interview the victims of domestic violence through in-person or virtual interview. The interview was conducted on domestic violence survivors on their experiences and perceptions of domestic violence at WAFAA Organization's shelter. After the interviews were conducted, the interviews were transcribed and categorized as sexual abuse, emotional abuse and or all abuse.

Outcomes/Results: The main goal of this research was to see how the victims described their experience. The results showed that 50% of women were sexually abused, 20% were emotionally abused and 30% were categorized as all abuse. The clients at the shelter talked about their traumatic experiences and how they took the initiative to seek help from WAFAA Organization. All of them described their experiences to be traumatic and devastating. All participants in this study emphasized the importance of consistency in treatment. They were glad that they sought help with the WAFAA Organization where their basic needs such as food, shelter, and various other services were provided.

Evaluation/Conclusion: With the support of the donors of the organization, the WAFAA organization provides free food and other services such as legal aids, anger management classes, and counseling sessions. Domestic Violence is a very serious matter that requires attention. The strengths of this study stands on the data derived from this study coming directly from the practitioner, Miss. Wafaa Saad, who works every day with women impacted by trauma from domestic violence exposure.

Title: Respiratory Markets: Affordability Comes First

Name: Shankar, Nikita

Preceptors: Nagy Shagrithaya & Connie Pak

Agency: DiRx Health

Purpose: To evaluate the US respiratory market and determine the inefficiencies related to drug access and propose strategies to target patients with these access issues.

Significance: Over 25 million Americans suffer from Asthma and of those 3,564 die each year (CDC, 2018). 16 million Americans suffer from Chronic Obstructive Pulmonary Disease (COPD), and of those 140 thousand die each year. The prevalence rate for those with respiratory diseases that either had Medicaid or are uninsured is 33% in the United States (NJSHAD, 2019). DiRx is a digital pharmacy that seeks to provide respiratory relief and medication directly to the underinsured and uninsured market. As a result, the first step to aiding affordability among respiratory patients is evaluating inhaler medication and providing strategic support to reach patients.

Method/Approach: A collection of studies were reviewed and assessed on respiratory illnesses. The top 3 disease states with the highest prevalence rate were evaluated based on demographics and medications. Medications were broken down into the following categories: cost per patient, manufacturer source, delivery method, and disease state. Medication data was analyzed from IQVIA 2020 raw medication data, which contains over 60,000 molecules with moving annual costs from 2015 to 2020 of over 100 different manufacturers. Medications were broadly categorized by Short-Acting Bronchodilators, Inhaled Corticosteroids, and Long-Acting Beta Agonists. The most commonly used inhalers (with medication) were evaluated across generic vs branded cost structures. The remaining research went into evaluating medication affordability across demographics.

Outcomes/Results: A completed presentation has been issued to determine the overall market condition of respiratory illnesses. Out of 7 total respiratory disease states, the 3 with the highest prevalence rate are COPD (6.6%), Asthma (7.7%), and Acute Bronchitis (5%). Metered-dose inhalers are the most commonly prescribed with albuterol, a short-acting bronchodilator. Per IQVIA data, there are 11 branded and 83 generic versions of albuterol inhalers. Upon research, the average branded version is \$74, and the generic version is \$26. Medicaid covers inhaler costs, but the Medicaid gap (those who do not qualify for Medicaid but cannot afford their medication) remain prevalent in 13 states: Alabama, Florida, Georgia, Kansas, Mississippi, Missouri, North Carolina, Oklahoma, South Carolina, South Dakota, Tennessee, Texas, and Wyoming. In terms of demographics, southern states, {Alabama (10.5%), Louisiana (8.9%), Georgia (8.9%)} African Americans (11.2%), and females(8.9%) tend to have higher prevalence rates.

Evaluation/Conclusion: The completed presentation issued to the leadership team proposes strategies on which manufacturers have the lowest sourcing costs. Ongoing strategic work with the marketing team enables a reach to southern states, female communities, and Black communities with higher respiratory illnesses and lower accessibility. A successful evaluation is determined by narrowing down affordable inhalers with the lowest cost medication from the lowest manufacturer sources for the most inaccessible demographics. Limitations include insufficient IQVIA medication data restricted to 5 years.

Title: HR, Culture and Operations Performance Assessment

Name: Summer Shanley

Preceptors: Direct Supervisor: Danika Colucci, HR and Operations Coordinator

Agency: Day One

Purpose: To research the organization's policies and assist in the creation and implementation of updates to them, as well as, distribution to Day One's employees.

Significance: Distributing new policies and making employees aware of the current policies is an important determinant for a successful organization or company. Employees can succeed in their job positions when they receive clear expectations. The more aware employees are of the information security policy and procedures, the more positive their attitude becomes towards it, resulting in risk-averse behavior, (Da Veiga, 2016). Having these critical policies forwarded to employees can decrease confusion or inquiries about the correct behavior or actions that need to be taken. Policies contribute a clear roadmap to employers in a supervisor position on how to treat the employees they supervise. Moreover, policies often serve as evidence that an organization has procedures that are in compliance with applicable laws and they minimize liability and risk.

Method/Approach: Research for policies were conducted by researching similar policies from other companies and HR professional organizations such as SHRM and juxtaposed to Day One's policies. These comparisons determined if existing policies were competitive in the market and if they needed to be updated. Additionally, research was conducted on new approaches and techniques as well as law updates that contributed to the creation of the new policies. Once the draft was achieved, it was reviewed by the supervising team in a collaborative meeting. This determined if the policy was ready for distribution or needed changes. When the policy was final, distribution started to employees via email and Slack communications.

Outcomes/Results: The outcome of the policies were concluded and updated so that they improved the operations and culture of Day One. These policies contributed to the overall performance and wellness of the employees. The beneficial outcome for the work environment was happier and mentally healthier employees; the company-wide productivity increased. Results presented nine out of the thirty-two employees exhibited a positive reaction to the recently developed and updated maintaining your computer guidelines. Furthermore, when employees were supplied with clear direction in policies, administrative processes operated more smoothly, therefore, increasing productivity on the administrative team, and infrequent mistakes occurred.

Evaluation/Conclusion: Once evaluated, employees should encompass Day One's policies and be up to date with the newest version. Having employees acknowledge that they acquired the updates by communicating a positive reaction allows for the project to be measured. Additionally, it demonstrates that the new policies were understood and comprehended with no questions. If the policies were not understood or needed further examination, this would be the moment to fix the final draft and rework the policy.

Title: Liver and Biliary Tract Cancer First Line Treatment Assessment

Name: Vanshika Sharma

Preceptors: Anni Xin, MPH

Agency: The Dedham Group

Purpose: To understand providers' perceptions and treatment decision-making patterns of different first treatment options in the BTC and HCC market space to anticipate future provider uptake of a client's novel therapy.

Significance: Biliary tract cancer (BTC) and hepatocellular carcinoma (HCC) are rare cancer forms with limited treatment options and treatment guidelines. Currently, there are multiple branded and generic chemotherapy drugs on the market that are used to treat BTC and HCC. However, provider preference and patient eligibility requirements differ significantly between the treatment options, and thus therapy selection can be quite nuanced and complex for BTC and HCC patients. This project identifies those provider perceptions, the rationale behind them, and the impact on cancer care.

Method/Approach: To garner a perspective on which first treatments oncologists and hepatologists prescribed for biliary tract cancer (BTC) and hepatocellular carcinoma (HCC) patients, a survey was sent out to a total of 45 academic medical center, health systems, and community practices to oncologists, pharmacists, and hepatologists. The survey asked detailed questions about efficacy, safety, and utility perceptions regarding the treatment options across indications. Providers were asked to rate them from 1-5, with one being the lowest and five being the highest, on efficacy, safety, and utility perceptions. This data was then pulled into Excel and quantified to develop an overall understanding of which regimens were rated highly by healthcare providers.

Outcomes/Results: For biliary tract cancer (BTC), first-line options were identified as generic chemotherapy, Keytruda, BRAF-targeted regimens, NTRK-targeted, Pemazyre, and Tibsovo. Of these, targeted therapies such as NTRK regimens were rated the highest. While so, 88% of accounts cited use of generic chemotherapy as the preferred treatment given applicability to a broader patient population. For hepatocellular carcinoma (HCC), first line treatment options were identified as Tecentriq + Avastin, 1L oral TKIs, Opdivo, Keytruda, and Cyramza. Of these, Tecentriq + Avastin had the highest overall rating efficacy rating (3.75), and 43% of accounts cited preference for this regimen in first-line care.

Evaluation/Conclusion: The data analysis showed that providers are more likely to adhere to the standard of care practices that have been established in the BTC and HCC treatment space, as generic chemotherapy was reported of higher usage in first-line therapy for BTC patients. Due to the perceived unmet need for an efficacious and patient versatile drug in comparison to chemotherapy and the rare disease and biomarker prevalence of BTC, the client's drug may be able to establish a standard of care, awaiting clinical trial data. However, as newly approved Tecentriq + Avastin has heavily impacted HCC treatment in first-line patients by quickly becoming a new standard of care, with 43% of accounts citing usage, it may be significantly more challenging for the client to establish strong market share in this indication.

Title: Geographically Analyzing Trends in Utilization of a 24/7 Medical COVID-19 Hotline

Name: Mustafa Sheikh

Preceptors: Dr. Bruce Ruck, PharmD, Managing Director

Agency: New Jersey Poison Center

Purpose: To analyze usage of the New Jersey Poison Center's COVID-19 Hotline in order to find underserved regions of New Jersey, as well as trends over time in utilization.

Significance: This study aims to develop a more full understanding of which parts of New Jersey utilize the COVID-19 hotline over time. The parts of the state that have not been fully served by the hotline's part of the public health response to the COVID-19 pandemic can be assessed by comparing the call volume per county to the trends in cases in these regions. As of the time of writing, the COVID-19 Information Hub's Data Dashboard shows 877,814 confirmed cases and 23,067 confirmed deaths due to COVID-19 ("New Jersey COVID-19..."). The New Jersey Poison Center's COVID-19 hotline records the ZIP code of each caller, so a week-by-week analysis of the incoming calls can be used to show how often different towns, cities, and counties, use the hotline to get information on COVID-19 contact tracing, quarantine, travel restrictions, symptoms, vaccine side effects, etc.

Method/Approach: This study was done retrospectively, starting with the week of the first confirmed case of COVID-19 in the United States, which is the week of January 19th, 2020, for a fifty four week timespan (Holshue et al., 2020). The originating ZIP codes of the calls for the geographical portion of the study were found by pulling logs of documented cases. These ZIP codes, that are used to determine what county the call originates from, are documented with every incoming call, and are self-reported by callers. The reports generated from the system were on a week-by-week basis. This study used the New York Times COVID-19 database, found at https://github.com/nytimes/covid-19-data, for data on cases in each county. The geographic data taken from these reports was used in Pearson's correlation tests using R to determine which regions accessed the COVID-19 hotline in proportion to that county's caseload.

Outcomes/Results: The Pearson correlation tests found that Bergen, Cumberland, Mercer, Middlesex, Salem, and Union county had statistically insignificant results, and therefore may require further analysis. Essex, Passaic, and Hudson counties were negatively correlated to the number of cases in the same time period. Atlantic, Burlington, Camden, Cape May, Gloucester, Hunterdon, Monmouth, Morris, Ocean, Somerset, Sussex, and Warren counties were positively correlated to their case counts, the "not specified" category for county was also positively correlated to the "Unknown" category found in the New York Times COVID-19 data for cases. The full, detailed results of these correlation tests are available here.

Evaluation/Conclusion: The COVID-19 hotline's phone number is listed on many local and state government web pages, so it is a particularly visible resource for people who have questions regarding the pandemic. For questions about travel restrictions, quarantine, vaccination, etc. it is a free and easily available resource. The hotline is utilized by people with questions about COVID-19 if they see the phone number and choose to call, rather than reaching out to them. Essex, Passaic, and Hudson county were found to have a negative correlation, between their caseload by week and call volume by week. These counties may be underutilizing the New Jersey Poison Center's COVID-19 hotline.

Title: Finding Free Baby Supplies for the Infants of Atlantic City

Name: Mikaela Sheridan

Preceptors: Direct Supervisor: Sandy Festa, Executive Director

Agency: AtlantiCare Regional Medical Center's Federally Qualified Health Center

Purpose: To find free/discounted products for the underserved infants of Atlantic City, New Jersey that are not typically provided through healthcare (diapers, portable cribs, etc.) by the end of the semester.

Significance: According to the National Diaper Bank Network, every year, nearly one in three parents in America struggle to afford diapers for their newborns (2013). In Atlantic County, this statistic holds true. Many parents also find it difficult to afford items such as portable cribs. Baby supply drives have the ability to provide new mothers with free diapers and other basics. AtlantiCare Regional Medical Center's Federally Qualified Health Center (FQHC) works to provide accessible health services to the members of its community. The FQHC is looking into hosting a baby supply drive so that the mothers of Atlantic City are able to collect enough diapers to last them until their next paycheck (or even longer). The FQHC is also looking to provide new mothers with the information they need to receive a free portable crib from the state of New Jersey.

Method/Approach: Detailed research of peer-reviewed journals was conducted in order to discover different ways to collect free/discounted baby supplies for the mothers of Atlantic City. Contact was also made to the Department of Children and Families of New Jersey to determine the necessary steps to receive a free portable crib. The FQHC has looked into hosting a diaper and infant supply drive for the mothers of Atlantic City. The FQHC has also been contemplating ways to connect underserved mothers to the Department of Children and Families of New Jersey to receive free portable cribs. A personal focus was on connecting the FQHC to the Department of Children and Families and conducting research of peer-reviewed journals.

Outcomes/Results: According to Massengale et al., forming diaper banks in partnership with community-based organizations (CBO's) allows for the distributions to be prioritized to the organization's own clients and prevents middle- and high-income mothers from abusing the free/discounted materials (2017). Quantitative data collection will be completed by April 25th, 2021. A process evaluation will be completed. This project will hopefully alleviate some of the stress on underserved mothers in Atlantic City.

Evaluation/Conclusion: This project will be successful if even one family is provided with free/discounted baby supplies, but the goal is to eventually host a diaper drive and connect clients of the FQHC to the Department of Children and Families of New Jersey. The project will be completely successful if 50 families receive free/discounted baby supplies through the diaper drive. A process evaluation will also be completed at the end of the project to assess if the project was an achievement. Some limitations may include the time it will take to plan and execute a diaper drive and the cooperation of the Department of Children and Families. The project should be looked at again the week of April 25th to evaluate its execution. This diaper drive and collaboration with the state of NJ will hopefully help families in Atlantic City for years to come.

Title: Assessment of AECOM's COVID-19 Risk Mitigation Plan

Name: Olivia Shively

Preceptors: Brendan Murphy, Site Safety Officer, Environmental Scientist III

Agency: AECOM, PPG NJ Chrome, Jersey City, NJ

Purpose: To assess the efficacy of AECOM's COVID-19 risk mitigation plan

Significance: At the mark of the one year anniversary of the COVID-19 global pandemic, the virus has infected 800,000 New Jerseyans and taken the lives of 23, 383. As part of the DEP Chromium Cleanup Partnership, AECOM has been working to remediate levels of chromium contaminants in the groundwater in Jersey City, NJ. The worksite was closed to entry from March until June of 2020. To protect the many field employees and subcontractors on the site, AECOM's health and safety team has created a COVID-19 risk mitigation plan to foster a smooth and safe transition back to site. As more science and guidance from officials emerge, this project will assess the efficacy of the plan and propose updates and future best practices to AECOM's Health and Safety team.

Method/Approach: In June of 2020, AECOM employees and subcontractors returned the worksite with the addition of a site COVID-19 monitor employee that reports to the site safety officer. On a daily basis, checklists were completed indicating whether or not social distancing, PPE, and all other guidelines were successfully implemented. Field logs were completed recording observations, corrective actions, and topics for future safety meetings. Data was analyzed between January and April 2021 to calculate days of work lost due to positive COVID-19 cases and exposures to confirmed cases. Standard operating procedure documents were reviewed, activities were observed, and employees' input was collected to understand the effects of the COVID-19 pandemic on field procedures.

Outcomes/Results: Between January 1st and April 19th, approximately 25 subcontracted companies reported to the site. Each of the subcontracted employees had self-monitored for symptoms and had been deemed "fit for duty". Any observations of noncompliance to policies were corrected with little resistance and forwarded to management if deemed necessary. After review of procedures and oversight of activities, it is evident that the policies have a positive outcome in preventing transmission of COVID-19. As a result, however, more consideration and planning from a Health and Safety standpoint was necessary prior to each field activity. Additional engineering and administrative controls have been put into place as measures to mitigate potential risk resulting from PPE and social distancing practices. For example, heat stress monitors have been implemented in the summer months to prevent heat stress injuries that may result from extended use of PPE. Zero work-related COVID-19 cases were reported as of April 19th, 2021. Of the 15 days of work lost due to confirmed cases of COVID-19 or exposure to confirmed cases, only 6 days were attributed to work-related exposures. This is grounds to say that AECOM's COVID-19 risk mitigation plan is effective as long as the plan evolves in conjunction with emerging CDC guidelines.

Evaluation/Conclusion: In conclusion, as more scientific research emerges and CDC quarantine recommendations are updated for those who have had COVID-19 or the vaccine, methods should be put into place to allow expedited update of AECOM's COVID-19 policies to the same standard. Also, a proposed future topic of discussion is the privacy of employees' medical information and ethics of asking employees to disclose if they have received or plan to receive the COVID-19 vaccine.

Title: The Wellness Classroom

Name: Rochelle Shvartsman

Preceptors: Francesca Maresca, PhD, CHES

Agency: Rutgers Health, Outreach, Promotion, and Education

Purpose: To assess student wellness after the integration of a wellness component into the curriculum for the semester. The intervention included a reading, class guest lecture and written assignment.

Significance: A study created and analyzed in the journal Depression and Anxiety explained that "one in four college students reports being diagnosed with, or treated for a mental illness" (Wasserman, 2019). Many colleges, such as the University of Southern California, University of Dayton, and Rutgers University, "have successfully implemented mental health and wellness training". At the University of Southern California, "data collected from student surveys…shows that 93 percent of participants had a different perspective after the course, and felt closer to their peers" (Wasserman, 2019). This indicates a need for wellness integrations in order to lower the rate of anxiety and depression amongst the student population. Evidence-based interventions will address the effectiveness of integrating wellness programming into the Rutgers curriculum.

Method/Approach: The intervention, The Wellness Classroom, was incorporated into eight Sociology classes in Fall 2019. Content varied by class. At the end of the semester, students were invited to complete an evaluation. Data from 158 students was collected and analyzed using IBM SPSS Statistical Software. Survey questions were composed of Likert scale, open-ended questions, and ranking questions. All open-ended questions that could not be measured were excluded from final data composition.

Outcomes/Results: Of the sample size cohort (n=158), 70.2% of students would feel comfortable seeking help from a faculty member outside of class time. Sixty-eight percent of students believe that a faculty member would take the time to talk to them if they needed help. Approximately 64.7% would seek such help only if it related to a course issue. Only 35.4% of students would feel comfortable asking a teacher for help with a personal problem. Additionally, 46.8% of students feel that a faculty member tried to understand their problems when talking about it. Finally, 79.7% of the class responded saying nobody in their class knows anything personal about them.

Evaluation/Conclusion: From our data analysis, we can conclude that the faculty-student and student-student relationship should be strengthened. Students identified faculty as someone to whom they would turn for assistance. This can be accomplished by integrating social wellness activities into the course curriculum. Class guest lectures from members of Rutgers Health Services, student workshops from Rutgers Health, Outreach, Promotion, and Education, additional readings, and group assignments will serve as effective strategies to (a) increase trust between faculty and students with regards to personal matters, and (b) increase communication between faculty - students and student - students. Ultimately, this will result in an increase in overall classroom wellness and overall wellness. In order to ensure continued improvement, follow-up surveys will be administered.

https://docs.google.com/document/d/1DHEiQZtZq7yAfU2iK4ZxdfY2G7fwbUlNsn5yV65UxFA/edit?usp=sharing

Title: WE-ACT Study Survey Design and Evaluation

Name: Wamia Siddiqui

Preceptors: Christina Tran, Research Associate,

Catherine Allende, Clinical Research Coordinator

Dr. Victoria Blinder, Primary Investigator

Agency: Memorial Sloan Kettering; Immigrant Health & Cancer Disparities Service

Purpose: To research state disability accommodation policies and aid in the design of a mobile health intervention aiming to assist racial and ethnic minority cancer patients to increase self-efficacy in seeking employment accommodations.

Significance:

In cancer patients, retaining employment during cancer treatment helps prevent financial toxicity and is associated strongly with improved clinical outcomes. However, nearly half of all women who leave the workforce during their adjuvant treatments never return, and immigrant patients from racial and ethnic minorities exhibited much lower rates of job retention. (Blinder et. al, 2017). Although employer accommodations are a requirement of all corporations under the American Disabilities Act, there are many discrepancies across various states, and many cancer patients are unaware of what accommodations are available to them during their treatment. The WE-ACT mobile application seeks to empower English and Spanish patients to seek employer accommodations in their respective states, have open conversations with their medical professionals, and educate patients about their rights and resources, with hopes of decreasing the disparities in employment accommodation among cancer patients.

Method/Approach:

Design elements were conducted and adapted compliant criteria constructed using the best practices detailed by the American Disabilities Act. REDCap software was utilized in order to design survey instruments incorporating IRB- approved questions and formatting. A thorough literature review and policy analysis was conducted to construct a database of cancer-related workplace accommodation policies by state, and R software was utilized for data analysis and visualization.

Outcomes/Results:

A total of five different extensive survey instruments, including ones of demographics, medical abstraction, cancer diagnostic screening, and others, were created on the REDCap database. A comprehensive database with information on workplace accommodation and disability protection policies related to oncology patients for all fifty states, and seven US territories, was constructed, and analyzed. Qualitative analysis was conducted to elucidate trends, finding that the minimum employee requirement for each state varied with geography, and differing policies surrounding protections for HIV/AIDS patients and substance abuse.

Evaluation/Conclusion: Telehealth mobile interventions are an effective way of disseminating health educational resources to patients from vulnerable populations. Database information will be translated for addition into the application content for development in the future. Continued evaluation will be conducted using the survey tools during focus groups and stakeholder interviews that will involve a larger number of participants who are racial and ethnic minority, immigrant cancer patients themselves, and healthcare professionals.

Title: Equal Access to Abortions for Marginalized Communities

Name: Gianna Silva

Preceptors: Stephanie Franklin

Agency: The Masakhane Center

Purpose: To highlight the unequal access to abortions that exist for people of color, the LGBTQ+ community, and people under age 20.

Significance: Restrictions on abortion have a disproportionate impact on low-income people, specifically LGBTQ+ people, young people, and people of color. According to the Guttmacher Institute, "75 percent of U.S. abortion patients live in poverty or are low income" (Boonstra, 2016). These populations experience many health disparities that are a direct result of social, economic, and environmental factors that, in turn, contribute to barriers in health care access. Evidence indicates that limited access to abortions is often attributed to funding cuts and strict legislation against crucial programs that provide these services to low-income and minority communities, in addition to the lack of reproductive healthcare providers in neighborhoods where there are larger populations of minority women (Ranji, et al., 2019).

Method/Approach: An online content analysis approach was taken to describe inferences on the access to abortions for marginalized communities, through online materials. In doing this online research, content from 30 scholarly articles that specified research on this topic were used in order to create a systematic review with a high-level of evidence. In addition to this, there was a focus on personal accounts with access to abortion from people in these marginalized communities through the review of articles and blogs. Through this collection and interpretation of online materials, inferences were made, and conclusions were drawn to support the disparities in access to abortions amongst these demographic groups.

Outcomes/Results: The main theme of most scholarly articles used in this systematic review were the government legislations affecting the access to abortions for marginalized communities such as the ban of abortions past a certain gestational age, restrictions on medical abortion, requirements of mandatory counseling, mandated parental involvement, and the Targeted Regulations of Abortion Provider laws, and The Hyde Amendment, which bans federal money from being spent on abortions in most of states in the United States. (The American College of Obstetricians and Gynecologists, 2020). Other articles in this review focused on additional barriers to abortion access such as stigma, violence, and lack of facilities.

Evaluation/Conclusion: Despite being legal in the United States, abortion is becoming increasingly unattainable for marginalized communities due to the numerous restrictions imposed through state legislations specifically targeted against marginalized communities. Restrictions placed on the access to abortions dictate whether or not care is safely obtained as well as the quality of care. These restrictions disproportionately affect these demographic groups, which sparks a need for repeal of legislation that creates barriers to abortion access. Individuals who are unable to obtain a wanted abortion, have higher rates of preforming unsafe abortions or carrying an unwanted pregnancy to term, causing a worsening physical health and increased economic insecurity ripple effect. To create more of an equal access to abortions for marginalized communities, there must be an ease on these governmental restrictions.

Title: Maximizing COVID-19 Vaccinations

Name: Juliana Silva, Student

Preceptors: Lovely Randle, Public Health Coordinator

Agency: Union County Public Safety/Health Department

Purpose: To analyze and assess the maximum capacity of vaccinations that can be accomplished safely and efficiently at the Union County COVID-19 vaccination clinic.

Significance: COVID-19 has been detrimental in population health. Within six months, New Jersey aims to vaccinate 70% of the adult population, about 4.7 million people (nj.gov). Each county in NJ is responsible for their community. Union County has implemented the Moderna vaccine using Kean University's Downs Hall. Being that this process is new to everyone, the Union County Department of Health wants to maximize their vaccinations to full capacity. Union County has created a group of workers and volunteers to help combat COVID-19. The program includes COVID-19 nasal swab testing, mobile saliva testing, and now vaccinations. This project will aim to see how many vaccinations are feasible in one working day while remaining both safe and effective. The motto for this project is safety, accuracy, and pace.

Method/Approach: Patients were selected randomly at the door and were given a timecard. This time card was stamped with the time they got in, and collected by the time they got out. After the average time was collected weekly, improvements were made throughout the stations and this process was repeated. At the end of the week, the average times were collected and analyzed. The data was compared to the amount of appointments and the amount of vaccine booths that was had. As appointments increased, staff became more efficient with the in-booth aspect. Stations deemed a waste were eliminated.

Outcomes/Results: As of mid April, Union County had completed over 67,000 Moderna vaccines at Downs Hall in Kean University's campus.. This does not include the many mobile vaccination events using the Johnson and Johnson vaccine, as well as the FEMA run center using Pfizer. Vaccination stations were added, a fully online registering system was integrated, staff were properly onboarded, vaccine supply increased, staff scheduling was organized via an app, and inefficiencies were decreased. Week 1 of vaccines, 300 appointments were completed each day. By the end of week 12, 1600 vaccines were completed per day, including Saturdays. The roadway to this accomplishment included key process improvement strategies. Diminishing wastes and increasing productivity, it was calculated that having 15 vaccinators completes 250 applications in one hour. With this, there are 16 people vaccinated per booth, per hour. Every booth takes about 3-5 minutes to complete one vaccine. Currently, our average has expanded to 350 applications in one hour, which includes those who have second doses and are familiar with the process. Union County can safely and efficiently vaccinate 1,750 individuals per work day. A 533% overall increase in appointments led to the vaccination process increasing by over 250%.

Evaluation/Conclusion: This ongoing project is about process improvement. In-booth times were the biggest change during this period. The average time spent in a vaccination booth is 3-5 minutes. This includes the questionnaire, the vaccine itself, and the explanation of documents. Union County has safely, accurately, and efficiently contributed to the common goal of Governor Phil Murphy. As of May 1st, about 7 of 8.91 million people have received at least one dose of a COVID-19 vaccine.

In-text citation:

Title: STI Burden Within a Population of YMSM and Transgender Women

Name: Erin Silvester

Preceptors: Direct Supervisor: Kristen Krause, PhD, MPH, Deputy Director

Project Supervisor: Richard Martino, MPH, Data Manager

Agency: Center for Health, Identity, Behavior, and Prevention Studies (CHIBPS)

Purpose: To analyze rates of sexually transmitted infections (STIs) in the population that participated in the Project 18 (P18) Newark research study.

Significance: The purpose of the P18 Newark study was to describe the syndemic production of sexual behavior, drug use, and mental health along with sexual health in a population of men who have sex with men (MSM) and transgender women between the ages of 18 and 25 in Newark, NJ. Sexual minorities and young adults bear disproportionately high rates of STIs including HIV, hepatitis C, gonorrhea, chlamydia, and syphilis (CDC, 2021). Analyzing the data from the P18 Newark study will allow researchers, community-based organizations, and health care providers to gain further understanding of the level of testing, prevalence, and treatment of STIs within this population.

Method/Approach: The P18 Newark Study was an 835-question survey that was completed by 77 participants between 2018 and 2020. From this data, a smaller dataset was created in SPSS consisting of variables of interest to this project. Frequency tables were then created from this data set for select demographic variables and variables pertaining to STI testing, diagnosis, and treatment. The frequencies and percentages from SPSS were then inserted into an Excel spreadsheet to allow for the creation of charts and tables.

Outcomes/Results: The majority (91%) of participants were aware of and willing to disclose their HIV status to researchers, but five (6.4%) were unaware of their status. Two participants tested positive for HIV while completing the study. There were a total of three (3.9%) participants with a positive HIV status. Of the sample (n=77), one (1.3%) had previously tested positive for hepatitis C, fifteen (19.2%) had previously tested positive for gonorrhea, nine (11.5%) had previously tested positive for chlamydia, and three (3.8%) had previously tested positive for syphilis. Some participants stated that they had never been tested for these STIs. 22 participants (28.21%) had never been tested for hepatitis C, 18 (23.08%) had never been tested for gonorrhea, 20 (25.64%) had never been tested for chlamydia, and 24 (30.77%) had never been tested for syphilis.

Evaluation/Conclusion: The HIV testing that was conducted during this study was beneficial as it allowed five participants to become aware of their status. Gonorrhea and chlamydia were the most common STIs reported by this population. Some barriers to testing may exist for this population since on average over 25% of the participants stated that they had not been tested for hepatitis C, gonorrhea, chlamydia, or syphilis. Further analysis should be conducted by the researchers at CHIBPS to better understand the syndemic nature of this data. A future goal of CHIBPS is to present findings such as these to the community-based organizations that assisted with recruiting participants for this study.

Title: Developing a State Department of Corrections COVID-19 Health Information

Grading Scale to Reduce the Spread of COVID-19 Infections in Prison Facilities

Name: Noah Sinangil

Preceptors: Sarah Malarkey, Research Assistant

Agency: Cancer Health Justice Lab, Newark, NJ

Purpose: To explore State Department of Corrections responses to COVID-19 by reviewing current policies and procedures and develop a grading scale to assess implementation by COVID-19 action plan to reduce the spread of COVID-19 in each state.

Significance: COVID-19 outbreak has invaded correction facilities nationwide and has exposed the ongoing structural and administrative problems with mass incarceration. Understanding how recent State Department of Corrections' responded to the COVID-19 outbreak may help build best practices regarding the detection and prevention of COVID-19. While online health reviews play a critical role in influencing a patient's choice, reviews about correctional facilities are relatively unknown. (Valera, 2021) Given the urgent need to prevent and reduce the spread of COVID-19 in these facilities, this project aims to further understand State Department of Corrections COVID-19 responses by assigning health review scores to each states' response to the pandemic.

Method/Approach: A review of both federal corrections health policy and law was performed to identify the most current information pertinent to prison health in the United States. In addition, existing policies and procedures pertaining to the COVID-19 pandemic were compiled from state Department of Corrections websites and other associated media. COVID-19 measures were used to build a framework for measurable components: (1) COVID-19 testing; (2) providing personal protective equipment; (3) vaccination procedures; (4) quarantine procedures; (5) COVID-19 mortality rates for inmates; (6) COVID-19 mortality rates for correctional officers and prison staff; (7) COVID-19 infection rates for inmates; (8) COVID-19 infection rates for correctional officers and prison staff; and (9) uptake of COVID-19 vaccines. A COVID-19 response grading score was developed in Qualtrics to assess each component on a Likert scale [very poor, poor, fair, good, very good] and subsequently rank each states' COVID-19 response by the Cancer Health Justice Lab.

Results: State Department of Corrections, including US territories of corrections, will be reviewed based on COVID-19 response and preparedness described on their websites. Public reviews are a combination of the ratings and a personal assessment of the overall experience with their COVID-19 website.

Evaluation/Conclusion: Reviews and ratings may provide essential information that could reduce mortality rates and the spread of infections. It will allow communities to make informed decisions about how people who are incarcerated are protected during a COVID-19 outbreak.

Title: Thrive Forward Toolkit for HCA Nursing Leaders

Name: Megan Slahor

Preceptors: Laura Grams, VP, L&OD and Katrina Greene, L&OD Director MidAmerica Division

Agency: HCA Healthcare

Purpose: To design an endurance/resilience toolkit that will provide resources for nursing leaders to use with their teams to combat burnout.

Significance: The COVID-19 pandemic has strained the healthcare system in unprecedented ways. Frontline healthcare workers and leaders are experiencing extreme emotional and physical stress, resulting in high burnout rates. The Leadership and Organizational Development department of HCA works to provide the leaders of the organization with the resources and training that they need to effectively fulfill their role and lead their teams. This project will provide a toolkit of resources for nursing leaders to utilize with their teams to alleviate stress and build resilience.

Method/Approach: On January 25th, leaders within the Learning and Organizational Development department formed a project task force composed of 16 leaders within the department. The project lead established a regular meeting cadence to bring the task force together on a weekly basis. The task force met for a total of 9 meetings to collaborate as a group and generate ideas for the creation and deployment of the toolkit. Resources curated by the task force using both internal and external sources were reviewed and organized. A total of 47 resources that included articles, videos, training materials, and other tools to assist nurse leaders and their teams in building resilience were chosen to be featured in the toolkit.

Outcomes/Results: Eight of the total 47 assets were formatted utilizing a brand complaint template to ensure consistency between the resources in the toolkit. The resources were formatted in PowerPoint and were distributed as non-editable PDFs. These assets will be a part of the toolkit as printable and smartphone accessible sheets that will be available to nursing leaders on the HCA internal website.

Evaluation/Conclusion: The toolkit is currently in the development stage and will be completed by the end of April. The launch of the toolkit on the company site is set for May 3rd. Once the toolkit is live, the site will automatically begin tracking user engagement with click analytics. Obtaining permission to access resources located on the organization's internal servers initially presented some difficulty. This resulted in minor delays in asset review in the early stages of development.

Title: Benefits of Social Emotional Learning in Children

Name: Megan Smaldone

Preceptors: John Fay, Executive Director

Agency: Resilience Inc.

Purpose: To evaluate the curriculum of social and emotional learning (SEL) and the benefits of teaching SEL to K-12 children.

Significance: Children need to learn social and emotional skills while they are young so that they can have better interactions both during their youth, and all throughout life. Learning these skills in school will help "young children feel more confident and competent in developing relationships, building friendships, resolving conflicts, persisting when faced with challenges, coping with anger and frustrations, and managing emotions" (Ashdown, D., & Bernard, M. 2012). Children learn these skills at different rates and through different circumstances. By creating a school curriculum, we can have a better way to teach children these necessary life skills. By asking parents questions about social and emotional learning, we can better understand how SEL impacts the community.

Method/Approach: To evaluate the benefits of the social and emotional learning curriculum, a survey was given out to parents with children attending K-12 schools. The survey consisted of a variety of different questions to better understand how parents interpret social and emotional learning topics currently in the curriculum. They were asked questions such as which topic they believe was the most important for children to learn and if the curriculum was a subject they would prefer their children to learn in school. This was to see if they believed children could benefit from learning these life skills in school and how important they believed it was for their children to learn SEL in a controlled setting.

Outcomes/Results: Evaluating feedback from parents will demonstrate the value of the program from the position of the parent. The majority of the parents said that they would prefer if their children could learn these life and social skills in school. Five of the parents asked when the curriculum would start to be implemented in school districts near them. One parent stated that they agreed that they were important lessons, but were unsure if they should be taught in school. Each parent had different views on which lesson is the most important. Dealing with conflict was the topic that came up frequently as the most useful. Parents made suggestions of what they thought could make the curriculum more well-rounded. Eighty percent of parents rated the curriculum a 5/5 for importance on social and emotional learning being taught in schools.

Evaluation/Conclusion: The social and emotional learning curriculum is still being developed. As of current time, there are 12 topics ready to be taught in all grade levels, kindergarten to twelfth grade. The curriculum needs to be implemented in order to see how successful it will be in teaching social and emotional learning to grade school students. To evaluate the curriculum, a survey and feedback from teachers, students and parents will need to be completed after the first year of the curriculum being utilized. To understand the academic benefits, reviewing test scores and class participation from focus classes before and after the curriculum is implemented will provide evidence as to whether or not SEL does indeed help with academic success, social skills, and mental & emotional education and health.

Title: Highlighting Hudson County's Resources during COVID-19

Name: Christine Starozytnyk

Preceptors: Steven Campos, Community Resource Director, Hudson Partnership CMO

Agency: Community Networking Association of Hudson County NJ

Purpose: To highlight providers in the Hudson County area that help bridge resources to build a stronger and healthier community during the COVID-19 pandemic.

Significance: Since the start of the COVID-19 pandemic last year, Americans have faced hardships such as struggling with bills and losing their businesses. With the stay-at-home orders, many have been looking for various resources to help with food, getting tested, and making sure they have insurance to name a few. The Community Networking Association works to combat this problem by holding monthly meetings to network and update members of the community about resources available to them within their counties. Awareness of these organizations should be higher, therefore, my project contributes to the solution by raising awareness of all of the available help within the community especially during these unprecedented times.

Method/Approach: This project is being conducted through research of what providers are available throughout Hudson County and how they are handling the services they provide from day to day even through these challenging times due to the COVID-19 pandemic. The steps that are involved are looking through the Community Networking Association of Hudson County's Official Membership List and emailing providers who may be interested in being highlighted. Upon interest, an interview is then conducted with the provider virtually over Zoom. The videos are 3-5 minutes in length and are then posted to the Community Networking Association of Hudson County's social media pages.

Outcomes/Results: At the end of this project, various spotlight videos will be produced highlighting providers throughout Hudson County available during these challenging times as well as Community Networking Association of Hudson County's board members and what they do. My goal is to make the community members aware of the resources available to them during the current COVID-19 pandemic.

Evaluation/Conclusion: In order to see if my project worked, I will check insights for each video regularly. I can see how many likes, shares, and views each video got and create a document that will be updated weekly. The project can be relooked at until the end of my internship with the Community Networking Association of Hudson County and even months and years after when new interns begin their work with Hudson County's chapter of the Community Networking Association.

Title: Community Needs Assessment for Health and Wellness Services in Essex County

Name: Moya Stewart-Gray

Preceptors: Direct Supervisor: Iris Novas Cooney, Co-Chair for CNA of Essex

Project Supervisor: Amy Jedele, Co-Chair for CNA of Essex

Agency: Community Networking Association (CNA) of New Jersey, Essex Chapter

Purpose: To evaluate the various health and wellness needs of community members of all ages in Essex County and analyze information sharing among CNA member organizations.

Significance: The triple aim of healthcare strives to provide access to quality, cost-effective care for an improved patient experience. Access to care is pivotal to this goal. As the Covid-19 crisis looms, access to care services is impacted. The Community Networking Association of New Jersey (CNANJ) connects with various service providers in Essex county, and across the state, to meet identified needs of the population. The varying connections allow each organization to share information, and resources, to meet the health and wellness needs of the population they serve. Gibson et al. (2014) found that access to information and social capital are proposed as mechanisms that facilitate the effects of networking on outcomes. HealthyPeople 2020 (CDC) cited lack of availability of services as an impediment to accessing care. The approach of using a community needs assessment for health services in Essex County will increase resource sharing and CNANJ membership to build healthier communities.

Method/Approach: CNA of Essex Chapter meetings were promoted electronically and via social media. Monthly CNA meetings were attended. A comprehensive review of the organizations serving the communities in Essex County was undertaken. Research of each attendee organization's scope of service provision and demography served was done through their websites. An interview was conducted with one such member organization that focused on the effects of the Covid-19 pandemic on their ability to revamp their service provision in novel ways to meet the needs created by the existing crisis. Electronic sharing of events across the network occurred through the CNA of Essex Chapter's email forum. Facebook posts were created to share member organizations' posts for upcoming events and resources pertinent to the groups they service.

Outcomes/Results: The CNA of Essex Chapter welcomes its first installment of spotlight videos from the internship experience. The spotlight video of the chosen organization(s) highlights the demography served, the services and resources provided and the needs they anticipate meeting based on their deliverables. It intends to bring awareness to an identified need in the community. The networking efforts and the spotlight video enables a wider audience for viewership of service provision so those in need of identified resources are cognizant of how to connect with providers and services to meet their needs. The result of the networking organization's steps for incorporating member organizations to mitigate the communities' needs and improve their health and wellness outcomes indicates the effectiveness of networking among community organizations.

Evaluation/Conclusion: Member organizations' viewership based on the number of likes and shares on the social media platform, Facebook, will indicate the project's effectiveness. It will be checked periodically to note if the numbers increase or plateau. Another mode to evaluate the effectiveness of the networking venture will take into consideration new member organizations that join monthly meetings.

Title: World Trade Center Intergenerational Transmission of Trauma Study

Name: Jennifer Suarez

Preceptors: Dr. Yael Cycowicz & Dr. Diana Moreno

Agency: Columbia University- NYSPI- GPEG, New York, NY

Purpose: To recruit participants that were 9/11 first responders and had children between the ages of 0-18 during September 11, 2001 for the World Trade Center Intergenerational Transmission of Trauma Study.

Significance: Data from this research can potentially provide more information about transmission of trauma throughout generations and support allocation of funds for public health programs to help family members of trauma survivors and not just individuals directly exposed. In addition to collecting data on the families of first responders as a whole, the parents were split into two groups; non-traditional and traditional first responders. Due to the large-scale damage of the world trade center attack, individuals not trained for this disaster, such as construction workers, had to contribute to the clean-up. In a previous study, findings showed that 31.4% of the children of nontraditional responders had at least one of the child behavioral problems such as fearful/clingy, externalizing behavior problems or somatic problems, meanwhile only 20% of children of police responders had at least one behavioral problem (Uchilda et al., 2018). The data suggest that training for traditional responders played a factor in better outcomes with less transmission of trauma for their offspring.

Method/Approach: Before commencing the recruitment process, questionnaires and cognitive tasks were examined numerous times to provide feedback/suggestions. Recruitment of the selected pool of participants focused solely on 9/11 first responders with a PTSD diagnosis enrolled in the World Trade Center Health Program, and their now-adult children. The questionnaires were administered through REDCap, entailed demographic and psychological, including emotional questions for participants to answer on their own time, taking up one hour and a half maximum. The game-like cognitive tasks administered through Gorilla, consisted of task switching, memory, and emotional recognition tasks. Gorilla is a study tool that allows for reaction time to be analyzed. Participants were informed about types of questions they would encounter but informed that it was voluntary participation and could stop if necessary.

Outcomes/Results: Since recruitment is remote, it has been a challenge to gain the trust of participants to encourage them to participate. COVID has also caused a stressed induced environment for people which has restricted their acceptances to participate.

Evaluation/Conclusion: In an attempt to avoid the ongoing cycle of the mental health issues resulting from transmission of trauma, more research should be conducted focusing on different events and larger populations. A limitation of the study is that due to the pandemic the study is being offered online, which can cause discouragement among people who aren't as comfortable with technology. However, using online data collection enables for the collection in a short time and large amount of data at a reduced cost.

Title: Measuring COVID-19's Impact on Black Food Insecure D.C. Families

Name: Morgan Terry

Preceptors: Jennifer Porter-Gore, Debora Heade

Agency: Center for Public Justice

Purpose: Collecting data from D.C. families to create a case study in order to determine the social impacts of the COVID-19 outbreak on black families experiencing food insecurity in Washington D.C.

Significance: Food insecurity is a prevalent issue in Washington D.C. Statistical research from the US Census Bureau revealed that African American families experienced food insecurity at over twice the rate of their white counterparts pre-COVID. Due to these disparities, the outcome of this study will determine whether or not the COVID-19 pandemic has disproportionately impacted food insecurity among black families in Washington D.C. Measuring the access of black families to food and groceries before and after the COVID-19 pandemic in a case study will reveal how these circumstances may have changed through statistical research. This research will serve as the guiding evidence for which CPJ can suggest to elected officials via letters, virtual meetings and phone calls which policies can help mitigate these issues.

Method/Approach: The case study for this project compared four statistical studies to determine the impact COVID-19 has had on food insecurity among black families in Washington D.C. These studies altogether presented statistical trends that illustrated social patterns in food insecurity pre and post COVID-19. They included the 2010-2014 ACS 5-Year Estimates Ward 8 data set, a report from D.C Hunger, the Capital Area Food Bank Hunger Heat Map of the Year 2019, and a survey from the D.C Office of Planning.

Outcomes/Results: Each statistical study contributes an elemental factor to the case study and helps either qualify or corroborate trends in food insecurity in Washington D.C and what impact COVID-19 has had. Firstly, the 2010-2014 ACS 5-Year Estimates Ward 7 and 8 data set shows that wards 7 and 8 of D.C, known as the southeast region of the city, are over 90% black while a report from D.C Hunger shows that 70% of food insecure residents of D.C lived in wards 7 and 8 up to 2014. 55% of SNAP and WIC recipients lived in these wards as well. The next statistical analysis is the Capital Area Food Bank Hunger Heat Map of 2019 which demonstrates the geographical distribution of food insecurity in the D.C metro area as of 2019. It shows D.C's southeast region had a rate of food insecurity of 42.5% while the northwest region, which is majority white, had a food insecurity rate of 4% pre COVID-19. Lastly, the final study, a survey from the D.C Office of Planning from April 2020, shows that black households were 13.5 times more likely to report being food insecure than their white counterparts post COVID-19.

Evaluation/Conclusion: This data suggests that staunch disparities in food insecurity predated the COVID-19 pandemic in Washington D.C. However, the research of this case study goes on to suggest that COVID-19 had an exponential impact on the rates of food insecurity in African American households and demonstrates that food insecurity among black families in Washington D.C. became more disproportionately higher than white families, despite the fact that food insecurity among white families also increased. The evidence from this case study was limited by an inability to account for other factors that occurred simultaneous to COVID-19 that could have caused an increase in food insecurity among D.C's black families, so further research will attempt to measure the impact of these factors.

Title: Analysis of the Agency Project Planning Process

Name: Kaitlyn Thomas

Preceptors: Benjamin Smith, Account Supervisor

Agency: BGB Group — New York City

Purpose: To analyze the agency's role in supporting projects, the challenges they face, and the strategic planning and coordination involved to meet client objectives.

Significance: Preparation is a significant factor that contributes to helping agencies and their employees successfully complete everything from day-to-day tasks, such as new projects, to full scale campaigns. A combination of advertising research, adequate initiative management (particularly early in planning), and simple logistics will result in the ultimate outcome for the agency's clients' requests (Di Benedetto, 1999). To deliver the best possible work, BGB Group utilizes project briefs as the foundation of every initiative. The project brief outlines key elements of a deliverable and provides clear direction to ensure alignment across agency teams. This approach will help the agency increase productivity, as well as become more efficient when completing work and meeting deadlines that were set — especially taking into consideration the challenges that may occur during a new initiative.

Method/Approach: To measure the effectiveness of the planning process and its impact on the completion of new initiatives, data was collected through surveillance of BGB Group employees and the current processes that are present at other similar agencies. First, the agency met with the client to establish an outline and aligned on goals and parameters for the project based on the client's strategy goals. Next, the agency regrouped internally to establish a timeline with key milestones and timeframes for development and client reviews. They then used the collected information to estimate a budget based on the resources projected to execute the project. Lastly, they combined all elements into a finalized brief for review and approval by the client. This clear and thoughtful planning process laid the vital foundation for success of the new initiative.

Outcomes/Results: The overall goal of analyzing preparation methods conducted by the agency to successfully execute new projects and initiatives is to review and interpret BGB Group's preparation strategies — this specifically includes how to better meet the client's objectives and to avoid recurring issues that frequently can arise during a typical initiative. Coordinating sufficient staff assists in closely adhering to deadlines and budgets agreed on at the start of the development of the project. Throughout the internship, positive outcomes were achieved when the best practices (such as emphasizing the importance of aligning on a timeline and the diligence of appropriately estimating budgets and coordinating resources), were being implemented. Clearly defining these core elements in the brief and presenting them prior to the creation of the deliverables, helps BGB Group in setting clear expectations for their clients over the course of project life cycles. Being that each project is unique, it's important to acknowledge that adaptability is necessary for the success of any good team. Poor communication can derail even the best planned strategies.

Evaluation/Conclusion: Continued application of thorough planning processes and best practices will continue to be the key to successfully meeting client objectives, further strengthening the relationship between BGB Group and their clients.

Title: Promotion of LGBTQ+ Healthcare Policies

Name: Anna Thomashevsky

Preceptors: Project Supervisor: Kathyrn Balitsos, Deputy Chief of Staff

Agency: District 11 Legislative Office, Monmouth County, NJ

Purpose: To research and propose LGBTQ+ health care policy reform bills to Senator Gopal and Assembly members Downey & Houghtaling in order to draft new legislation.

Significance: On average, individuals that identify as LGBTQ+ are twice as likely to be uninsured compared to non-LGBTQ+ individuals. In New Jersey, 12% of LGBTQ+ people are uninsured due to outdated health policies and socioeconomic factors. The 11th Legislative District advocates for minority groups by supporting and voting on legislation in the NJ Assembly and Senate to combat these issues. This project will use research to determine discrepancies in LGBTQ+ healthcare policies and propose bills to lower health disparities such as access to healthcare.

Method/Approach: A thorough review of the existing bills in New Jersey regarding LGBTQ+ legislation was conducted to assess inconsistencies. Research was narrowed down into specific groups within the community to focus on healthcare disparities. Transgender and intersex healthcare legislation were compared and analyzed against other states with a focus on progressive states to establish a baseline of current and necessary laws. Using this data, new bills were recommended to improve healthcare access and patient autonomy.

Outcomes/Results: Bills were introduced based on previous legislation supported in other states. One of the bills prohibits unnecessary surgery on intersex children under six years of age. This would allow bodily autonomy for a patient and prevent the 1 in 2,000 intersex children born each year from involuntary sterilization and genital normalizing surgery. Another bill would support transgender, gender nonconforming, or intersex (TGI) people by creating a fund to support partnerships with hospitals, clinics and housing programs to provide TGI-based healthcare.

Evaluation/Conclusion: This bill package would highlight various LGBTQ+ health issues facing youth and adults throughout New Jersey. The outcomes of other states with similar bills in place will be used as a benchmark of success for the future. Ultimately, the goal is to have Senator Gopal or Assembly members Downey & Houghtaling as a prime sponsor(s) and draft these bills into legislation. The implementation of each bill would mobilize New Jersey as a leader among progressive states to support LGBTQ+ friendly legislation.

Title: COVID-19 Testing and Vaccination Initiative Implementation

Name: Priya Vaid, Per Diem Care Coordinator

Preceptors: Supervisor: Amanda Blount, Outpatient Operations Manager

Assistant Manager: Jenny Yuen, Outpatient Ambulatory Care

Agency: Memorial Sloan Kettering Cancer Center

Purpose: To assist with the establishment of MSKCC's COVID-19 testing and vaccine initiative, which will be made available for high risk individuals, including MSKCC patients and employees, and to promote preventative measures that adhere to CDC COVID-19 guidelines.

Significance: As of March 2021, over 500,000 individuals have lost their battle with COVID-19; the infectivity of this virus has led to over 28 million positive COVID-19 cases within the United States. For individuals who are diagnosed with cancer and are undergoing treatment, there is an increased risk of serious illness when exposed to COVID-19. MSKCC sees a multitude of individuals in their outpatient and inpatient facilities for cancer-related treatment, healthcare services, and testing. MSKCC's David H. Koch Center has become the epicenter for MSKCC's initiative for COVID-19 testing and vaccination. At this location, MSKCC patients can receive their COVID-19 vaccine. Additionally, patients can get tested for COVID-19 in the same building prior to their appointments. Since the start of this initiative, MSKCC has vaccinated eligible patients and 15,4000 employees to ensure that preventative health measures are put into place for those who are most susceptible to serious illnesses from COVID-19. The COVID-19 positivity rate among employees has remained steady since February 2021, with 1.4%.

Method/Approach: A series of principles, the All Care Together (ACT) principles, are implemented by MSKCC to ensure patient autonomy, reduce confusion or distress throughout the healthcare process, and build effective and efficient relationships between care coordinators, health care providers, and patients. Interns will work towards establishing and analyzing how ACT principles can be applied to services provided by the COVID-19 vaccination and screening clinic. Interns will follow CDC COVID-19 guidelines when interacting with patients, assist with pre-screening inquiries for patients and employees, and aid with contact tracing for MSKCC patients positive for COVID-19.

Outcomes/Results: Active and eligible patients along with 15,400 employees have been vaccinated. MSKCC has administered three of the approved vaccines in the clinic. For employees that have been fully vaccinated, 22 of them have gotten infected with COVID-19; for employees that are unvaccinated, 444 COVID-19 positive infections have been reported. Unvaccinated employees are 20 times more likely to get infected with COVID-19 compared to those who are vaccinated. The overall COVID-19 positivity rate has remained steady since February 2021, with a rate of 1.4% for employees.

Evaluation/Conclusion: The data suggests that vaccination rates indirectly correlate with the infection positivity rates. The success of this project will be determined when the COVID-19 positivity rate will be below 1% and all eligible individuals can get vaccinated. Some limitations to this initiative include the following: not all susceptible patients are eligible for vaccination due to treatment, vaccines are limited to patients with the exception of some caretakers, and the vaccines are made available at MSKCC locations in NY; patients not residing, working, nor studying in this state can experience difficulty obtaining their vaccines (travel, work-leave, cost of commute, accessibility/availability of transportation, etc.).

Title: Data and Administrative Management for Community Non-Profit Organizations

Name: George Varghese

Preceptors: Direct Supervisor: Iris Cooney, CNA - Essex Chapter Co-Chair

Project Manager: Amy Jedele, CNA - Essex Chapter Co-Chair

Agency: Community Networking Association of New Jersey - Essex Chapter

Purpose: To manage membership data and encourage local businesses to participate in community networking events organized by the Community Networking Association of New Jersey (CNANJ), a non-profit organization.

Significance: Community support plays a vital role in the health and wellbeing of its residents. Many people every year face challenges and dangers outside their control (i.e. unsafe neighborhoods, discrimination, or financial struggle). This can have a negative impact on the health and safety of an individual but "public health interventions using community engagement strategies for disadvantaged groups are effective in terms of health behaviors, health consequences, health behavior self-efficacy, and perceived social support" (O'Mara-Eves et. al). The CNANJ aims to bring together all different types of service organizations within a community to help those who are unaware of the services available to them. The CNANJ also serves as a medium for all local businesses to connect with other small and large businesses in the community. This project aims to organize membership data within the CNA of Essex and make it easier for organizations to reach out and connect with one another; Individuals seeking help through the CNA will also have access to the organization's resource guide.

Method/Approach: In order to reestablish a strong presence in the County since the start of the pandemic, interns with the CNA of Essex were tasked with retrieving membership data from prior CNA files in order to construct a master membership database. Members were contacted by phone and email and asked to provide updated contact information as well as flyers or advertisements for the CNA resource guide. Interns used Google Forms to collect member data, which were then exported into Google Sheets for organization. Interns endorsed the monthly meetings through social media (Facebook), emails, and phone calls. Members were encouraged during meetings to notify interns and co-chairs of upcoming events or projects so that it could be promoted through the CNA Facebook page and Google Group.

Outcomes/Results: Through consistent outreach and the development of various support projects, such as the master database and resource guide, members of the CNA are slowly returning to the monthly meetings. The resource guide helps keep members of the organization, and residents of the county, posted on resources or events offered within the community. The master database, on the other hand, allows members to communicate with one another for business inquiries and or project collaborations. As more people join the meetings, more connections are made, which supports the community at large.

Evaluation/Conclusion: Transitioning from in-person meetings to online meetings was a struggle for the CNA. In person meetings were vibrant and exciting which was difficult to convey and mimic over the computer. That being said, access to meetings and resources has become a lot easier for members in the Essex chapter and other sister chapters. Members are encouraged to attend the online sister chapter meetings so they can further their network circle which may have been difficult pre-pandemic.

Title: Awareness on Eradicating Basic Needs and Insecurities in Rutgers-NB remotely

Name: Stephanie Vasquez

Preceptors: Kate Sundberg, Campus Organizer

Agency: NJPIRG- New Brunswick, NJ

Purpose: To promote resources that help vulnerable Rutgers students and New Brunswick Community receive the proper essentials and assistance for their well-being remotely.

Significance: NJPIRG strives to protect the environment, eradicate poverty and hunger, and make school resources, such as textbooks, affordable for students. In 2019, a survey was conducted and released to students of Rutgers - New Brunswick asking if they were experiencing food and housing insecurities. About one in five undergraduate students reported experiencing housing insecurity throughout the year. NJPIRG's Hunger and Homelessness campaign's objective is to eradicate basic needs and insecurities on campus by promoting resources that help assist those who are the most vulnerable.

Method/Approach: An infographic promotion campaign was launched using social media, email, and the assistance of every available intern and volunteer. Every week infographics were designed by interns to provide brief information on the latest issue of basic needs and insecurities on campus and dates of upcoming Hunger and Homelessness webinars and fundraisers. Afterwards, interns posted these materials on their social media accounts such as Instagram, GroupMe, and Facebook tagging the NJPIRG account to direct the audience where to find additional information and to gain more followers. The second method was outreaching to Rutgers faculty by sending an email and requesting to share information about the campaign's webinars and fundraisers to the students or their colleagues. A Google spreadsheet was generated for every infographic and outreach event to keep track of the number of individuals that were willing to attend the webinar, donate, or spread awareness of the issue.

Outcomes/Results: Between January 20, 2021 and April 30, 2021 of Infographics were posted on social media and emailed to Rutgers recipients, faculty, professors and alumni. In March, a fundraiser collected \$318 for the Women's Aware Organization of New Brunswick and 39 individuals attended the webinar of the Women's Week. In April, the Elijah's Promise fundraiser raised \$208 and the webinar had 23 individuals attend NJPIRG w gained 44 new followers in the past three months and more than 150 individuals helped spread awareness of all the resources available to Rutgers students.

Evaluation/Conclusion: Although the campaign had to continue its services remotely, it still succeeded in completing its objective, ensuring Rutgers Students and the New Brunswick Community are aware of the resources near them. Promoting through social media helped spread awareness upon the issues of basic need insecurities, and donors still supported the campaign's fundraisers. The campaign was still able to provide assistance to those who are the most vulnerable and in need.

Title: Melinated Moms Community Engagement Initiative

Name: Aradhana Vyas

Preceptors: Jaye Wilson, Founder of Melinated Moms

Agency: Melinated Moms

Purpose: Analyzing email marketing trends to find the most effective day and time for member interaction

Significance: Social isolation is a very real problem that affects 1 in 10 Americans. In two parent households, 36% of fathers and 49% of mothers reported feeling lonely, and these numbers are even more drastic among single parent households. Melinated Moms intends on creating and providing a community to those looking for support by hosting events that are centered around their five principles: health and wellness, family fitness, food and nutrition, women empowerment, and mommy and me bonding. By creating a community, Melinated Moms seeks to combat social isolation and promote advocacy and independence. Some avenues through which Melinated Moms bridges the isolation gap are by creating and providing key programming like the Find Your Roar advocacy training program, child birthing in communities of color as a black maternal health week annual event and COVID-19 conversations that created a co-ed discussion space for parents to exist and discuss action steps with each other during the pandemic. Programming implements the 5 principles and eliminates member risk of social isolation. Email marketing is a tool utilized to improve and increase community engagement, while combating social isolation. Analyzing changes in market strategy illustrates what is working and what is not working when attempting to improve community outreach. These results can be used to further develop marketing strategies.

Method/Approach: This initiative focused on analyzing how the time and day an email marketing campaign is sent out influences member interaction. Over the past four months, 20 email campaigns have been sent out through Wix. Wix performs a superficial analysis rendering information along the lines of how many people the marketing campaign was sent to, how many people opened the email and how many people clicked embedded links. This data was compiled and analyzed through an assessment of averages. The average interaction experienced across campaigns, how specific days match up to the overall average, and how sending campaigns in the morning compare to sending campaigns in the evening were compared.

Outcomes/Results: Member interaction with email campaigns averaged 34%. Wednesdays had the highest interaction rate, 41.2% and people interacted more with campaigns sent out in the evening, 35.5%. Of the 20 campaigns sent out, eight experienced above average interaction. Six of those eight were sent out in the afternoon/evening at varying times, while two of those eight were sent out in the morning.

Evaluation/Conclusion: Based on the analysis conducted, evidence suggests that Wednesdays and evenings are the best for sending out email campaigns. In an effort to improve the outreach numbers, it would be beneficial to examine the ListServ, which is the compiled list of member information, and cross reference this list with the Wix email interaction data. This comparison will allow for the ListServ size to be cut down and people who are really utilizing the organization and its resources to be more finely targeted. Accordingly, the email interaction will represent higher engagement since resources are being sent out to people who are interested in the organization's services. Sending out emails early in the evening likely renders more positive email campaign interaction because the emails are higher up in a members inbox after coming home from work.

Title: Cleaning New Jersey COVID-19 Data

Name: Aaron Wang

Preceptors: Stella Tsai, PhD, CIH, Research Scientist for the Communicable Disease Service,

Infectious and Zoonotic Disease Program

Agency: NJDOH

Purpose: To provide an accurate representation of COVID-19 data to government agencies and to the public

Significance: In early 2020, COVID-19 began to spread across the United States. According to the New Jersey's COVID-19 data dashboard, as of April 21st, there have been a total of 865,733 lab confirmed cases in New Jersey since the beginning of the pandemic. In order to have a proper assessment of COVID-19's impact on the state of New Jersey, the data on reported cases need to be accurate. The data team of the NJDOH works to manage and clean data received from the different laboratories running tests. The data is not always transferred properly between systems, and there is sometimes human error when information is inputted. Other errors include false cases and wrong zip codes. By making sure that the reported cases fit the case definition, as well as by fixing other data errors, the NJDOH ensures that the reported information is accurately reported to the public and other government agencies.

Method/Approach: The NJDOH follows state guidelines on case definition to determine if laboratory tests constitute a case. If the laboratory utilizes serology testing (testing for antibodies), the results cannot be used to confirm a case. This holds true even if the person tests positive for antibodies. If an antigen test is used instead and the result is positive, then the case is marked as probably. If a PCR test is used and the result is positive, then the case can be confirmed. Positive PCR results that are 180 days apart are classified as separate cases. Some individuals are entered multiple times into the system, and must be merged as a result. Cases with incorrect addresses must also be adjusted, which may not always be possible due to lack of information.

Outcomes/Results: Errors in case status needed to be fixed every week ($\sim 0.0625\%$ of cases). Said errors could be due to the laboratory not adhering to state guidelines or system error when the information was being transferred between databases. Duplicate cases arose when individuals got tested at different locations, causing multiple instances of the same person to appear in the system. These cases were merged and accounted for around 1-5% of the cases. For the county of Monmouth, 5.65% of the duplicate cases needed to be manually fixed. $\sim 0.08\%$ of all cases had issues with addresses, with either missing or incorrect information.

Evaluation/Conclusion: It is difficult to determine the success of updating case definitions and merging individuals, as it is impossible to know the true number of COVID-19 cases. Nonetheless, it is still a meaningful endeavor, as it is important to report accurate numbers. Ascertaining the success of correcting address information is far more realistic. At the beginning of the pandemic, around 50% of the cases had unknown counties. When known data error gets reduced, the amount of the unknown gets smaller. As of April 21st, only 718 cases remain with no county (~0.08%). The percentage of unassigned cases continuing to decrease over time would indicate success. Having accurate location data can help agencies properly determine hotspots for the pandemic.

Title: Standardizing, Developing, and Updating Job Descriptions at ParkerLife

Name: Alessandra Wojcicki

Preceptors: Candice Pietrzak, Talent Management & Organizational Development Specialist

Agency: ParkerLife

Purpose: To develop a library of updated job descriptions and titles that reflect the current vision, mission and values of the organization.

Significance: Job descriptions that are neglected and outdated do not accurately reflect the duties an employee is expected to perform. This neglect results in the organization losing standardization between the new and old documents (McDade, 2013). By standardizing all job descriptions at baseline, this enhances the structure of the corporation and adheres each position to its mission, vision and values. Standardization can improve the hiring process and give all future employees a clear understanding of what they should expect and the necessary qualifications (McDade, 2013). Within a long term care facility specifically, it is important to standardize each job position to ensure the level of care remains the same in each home.

Method/Approach: All job descriptions in Parker's database, totaling over 220, were separated into an Excel spreadsheet dependent on location, department, job title, and whether the position was salaried or hourly. The Excel spreadsheet is kept up to date with the most current positions within the organization to ensure the project remains on track. The process focuses on specific departments at a time across all locations of Parker. The evaluation was done by examining the job descriptions, for one position at a time, and looking for where there are similarities and differences amongst the primary purpose, minimum qualifications, and essential duties throughout the locations. Once documented, meetings were set with the head of departments to ensure the purpose, qualifications, and duties of each position were correct. Once highlighted and noted, all job descriptions were transferred into a condensed job description template which included site specific needs and/or modifications which awaited the Supervisor and HR review.

Outcomes/Results: More than four departments were able to have their job descriptions standardized while a fifth department is in the process of standardizing. Once reviewed, these departments, across all locations, can utilize the standardized job descriptions in their hiring process. Along with the standardized template, all locations and departments have access to the essential duties and minimum qualifications tailored to them. This allows for consistency and efficiency throughout the hiring process. The job descriptions are easily accessible and those joining the department are able to know what their specific position entails.

Evaluation/Conclusion: To ensure that the standardized descriptions were successful, evaluation forms will be distributed to a new hire once the hiring process is completed. Process evaluation forms can be tailored to see whether the job description was clearly worded and easily interpretable. This evaluation can be embedded in the current evaluation process where in 60 days, after being hired, a Stay Interview is conducted by a Talent team member to determine the employees onboarding process.

Title: Proposed Modifications to the National Interstate Data Exchange Agreement

Name: Julia Wolf

Preceptors: Castine Clerkin, MS, CTR, Program Manager, Virtual Pooled Registry

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

Purpose: To create a list of proposed modifications to the National Interstate Data Exchange Agreement (NIDEA) to improve the sharing of cancer data between states, specifically the re-release of data and reduce the number of registry addendums.

Significance: Cancer is the second leading cause of death in the U.S. (CDC). NAACCR is a collaborative umbrella organization for cancer registries, governmental agencies, professional associations, and private groups in North America interested in enhancing the quality and use of cancer registry data. A key element of cancer data collection is the exchange of data between states cancer registries. Non – resident registries must report cancer cases to the patient's state of residence registry to ensure the complete cancer case ascertainment. This project will create a database of registry addendums to the NIDEA, categorize them into similar topic areas, and then propose modifications to the agreement that would remove the need for the registry addendums.

Method/Approach: Addendums to the NIDEA were collected and organized into a database of similar topic areas. A total of 70 addendums were reviewed for this initiative. The initiative included the recruitment of seven registries that do not report to NAACCR. The addendums were transferred to an Excel spreadsheet, summarized into layman terms, and analyzed against the NIDEA. A set of questions was developed to gain insight into the purpose of each registry's addendum(s) and contact was made with key registry staff to better understand issues related to the re-release of exchanged data for research. All information in the Excel Spreadsheet was used to help identify possible modifications to the NIDEA.

Outcomes/Results: At least seven state registries have agreed to remove their addendums. The modifications to the NIDEA included a list of five defined terms added to the beginning of the Agreement and five revisions to language of the two most prevalent addendum topics. Only two of the seven non – participating cancer registries showed interest in signing onto the NIDEA in the foreseeable future. The updated NIDEA will not remove several registry addendums because of different state laws. The end goal is to create an updated commonly accepted NIDEA with as few addendums as possible.

Evaluation/Conclusion: This initiative is striving to clarify language in the NIDEA regarding the re-release of identifiable data. Feedback from all fifty United States cancer registers, surrounding territories, and the Canadian registries will be a great success. At the end of the project, the hope is to remove as many registry addendums as possible. In order to accomplish this goal, the final deliverable will be a list of definitions and proposed modifications to add to the NIDEA accepted by one of NAACCR's lawyers.

Title: Transitioning Rutgers University to 100% Renewable Energy

Name: Brennen Wu

Preceptors: Carly Brannan: Campus Organizer, Kate Sundberg: Campus Organizer

Agency: New Jersey Public Interest Research Group (NJPIRG)

Purpose: To campaign Rutgers University and its 3 campuses to transition to 100% renewable energy by 2030

Significance: Every year, about 150,000 people die because of climate change as a result due to extreme weather and it is estimated that more than 100 million people return to extreme poverty by 2030 (Climate Change, 2010). In New Jersey, 352,000 people are at risk coastal flooding while by 2050, an additional 110,000 people are projected to be at risk due to sea level rise (Statistics on Climate Change, 2018). The New Jersey Public Interest Group (NJPIRG) plans to tackle this issue of climate change by transitioning Rutgers University to 100% Renewable Energy by 2030 by phone banking, signing petitions, and working with student organizations. The NJPIRG 100% Renewable Energy Campaign believes that by transitioning Rutgers University and her 3 campuses, it can reduce the amount of carbon emissions released in New Jersey as well as demonstrate the lead for other colleges in the state to do the same. By collecting petitions and working with student organizations, it will provide the necessary pressure to ensure that President Holloway and the Climate Task Force include a strong commitment to renewable energy in the climate action plan set to be released this summer.

Method/Approach: In order to tackle NJPIRG's main campaign of "100% Renewable Energy", a team of 25 interns was recruited from Rutgers University's undergraduates. The goal of this campaign was to raise awareness by signing at least 3,000 petitions from Rutgers students and faculty. Weekly team meetings and events were held by campaign organizers and interns to discuss deadlines, train interns, and raise petitions. Methods of petition raising included class announcements, phone banking, friend organizing, social media posts, and listservs. In addition, volunteers were recruited to aid in a week-long event known as the "Petition Blitz", in order to further help reach the goal of 3,000 petitions.

Outcomes/Results: A total of 2,285 petitions were collected over 4 months. Of the total signed, an estimated 40% came from class announcements, 35% from friend organizing, 10% from phone banking, 10% from social media, 5% from listservs. The exact number of people contacted through these methods are unknown; however, 78 class announcements and 53 listservs were done. In specific to the "Petition Blitz", 785 petitions (34.4%) were collected with the help of 98 volunteers.

Evaluation/Conclusion: While close, at the end of the semester, only 76.1% of the intended 3,000 petitions were achieved. The inability to reach this goal could have been due to the online nature of the Spring 2021 semester as no in-person events were held due to COVID-19. Nevertheless, the "Petition Blitz" played a vital role in helping achieve a large amount of the desired petitions. In the future, NJPIRG will continue to petition and raise awareness until Rutgers University commits to 100% renewable energy.

Title: New Jersey Fossil Fuel Infrastructure Project Prevention

Name: Sylvia Yoon

Preceptors: Matthew Smith, New Jersey Director

Agency: Food and Water Watch, New Jersey

Purpose: To support and promote campaigns aiming to stop new fossil fuel infrastructure projects within New Jersey.

Significance: Fossil fuels such as oil, coal, and gas provide for around 80% of America's energy needs, but in doing so there is a toll on the environment because of air pollution, water pollution, and global warming (Denchak, 2018). In 2018 alone, research from Harvard University found that more than 8 million people, which is equivalent to 1 in 5 deaths worldwide, have died from fossil fuel pollution (Fossil Fuel Air Pollution, 2021). Currently, there are two major fossil fuel projects proposed to directly impact New Jersey. First, Tennessee Gas Pipeline Company (TGPC) plans to expand their existing fracked gas pipeline in North Jersey and build a new compressor station. Second, the Gibbstown Logistics Terminal project plans to transport liquified natural gas along a 200 mile route from Pennsylvania to New Jersey. Food and Water Watch works to spread awareness of these proposed projects by directly communicating with New Jersey community members via phone call, email, and news LTE publications. This project will further facilitate communication with New Jersey residents in order to prevent the further expansion of fossil fuel infrastructure projects.

Method/Approach: In order to promote campaigns in specific targeted regions of New Jersey, data was first collected on towns within all counties of the state. This data consisted of researching government forms, specific government officials, county commissioners, town environmental teams, and finding contact info for each. New Jersey contains 565 municipalities and this information was organized into a spreadsheet with sheets for North, Central, and South Jersey along with a sheet for county commissioners. Using this collected data, specific towns were contacted via email to their governing bodies in order to gain support for appropriate campaigns. In addition to this, phone banking residents living in specific towns were reached. Directly speaking to community members on the phone created a chance to collect emails to send future information and inform the individual on the pressing environmental issues at hand.

Outcomes/Results: As a direct result from these methods of promoting campaigns, data has been collected on over 740 New Jersey government officials such as mayors, council, commissioners, and environmental teams. Furthermore, this data has been used to facilitate communication with these individuals such as sending invitations to Zoom Meetings, signing letters, and sending them to Congress.

Evaluation/Conclusion: It can be concluded that the effectiveness of this project was reflected in the increased number of signatures received on online petitions and letters to Congress compared to ones before the project. Furthermore, since the beginning of phone banking and directly inviting residents to Food & Water Watch events, there has been a surplus of attendees with over 100 members in a Zoom call. In order to ensure proper upkeep, every year, and every new government election it is recommended to continuously update the spreadsheet.

Title: Employee Resource Group Best Practices Report

Name: Thea York

Preceptors: Direct Supervisor: Ruth K. Bash, Vice President & Chief Culture Officer

Agency: RWJBarnabas Health, Children's Specialized Hospital - New Brunswick, NJ

Purpose: To study and communicate employee resource group best practices in order to promote the health and wellbeing of CSH employees as well as aid in the launch of new ERGs and diversity and inclusion initiatives across all RWJBarnabas Health sites.

Significance: A systematic review of the mental health of health care workers during the COVID-19 pandemic found that the "lowest reported prevalence of anxiety, depression, and stress among health care workers was 24.1%, 12.1%, and 29.8%," while "the highest reported values for the aforementioned parameters were 67.55%, 55.89%, and 62.99%, respectively" (Vizheh et al., 2020). Further, "nurses, female workers, front-line health care workers, younger medical staff, and workers in areas with higher infection rates reported more severe degrees of all psychological symptoms than other health care workers" (Vizheh et al., 2020). According to the COVID-19 Community Vulnerability Index (CCVI), New Brunswick has a 0.69-0.87 overall vulnerability which is considered high-very high compared to New Jersey's average vulnerability of 0.56 which is considered moderate (Surgo Ventures, 2020). The RWJBarnabas Health Children's Specialized inpatient Hospital is located in New Brunswick and has begun the launch of 7 different employee resource groups to address the mental health and overall well-being of its employees in New Brunswick as well as across its 16 other locations. Aiding in the launching of these ERGs will increase access to important resources, support groups and opportunities to employees struggling due to the pandemic and resulting organizational changes.

Method/Approach: An organization wide employee engagement survey was conducted asking a broad range of questions to help CSH administrative leaders understand possible engagement improvement opportunities. Three employee focus groups were conducted to address the questions where responses were rated lower than the previous year. The questions included how the organization could further promote respect in the workplace as well as make it easier for employees to disconnect from work. Lastly, an ERG best practices report was distributed to all ERG leaders in order to help them complete their charters, mission statements, SMART goals, as well as aid in promotion, outreach and branding.

Outcomes/Results: A general consensus from the employee focus groups revealed that to feel respected at work staff appreciate open communication and responsiveness in person as well as through email. They also concluded that respect at work comes from receiving recognition for their hard work, reliability of leaders to address issues and accountability from peers to work as a team. Further, employees suggested that in order to help them disconnect from work the organization could aid in facilitating "warm handoffs" and supporting staff with flexibility to answer emails and complete paperwork during work hours. Of the 7 ERGs the number of members ranges from 3-14 with more than half having completed their charters.

Evaluation/Conclusion: In order to address the focus group feedback an engagement pulse survey will be conducted later in the year. Further, to evaluate the effectiveness of the ERGs a survey was sent to all ERG leaders to track their progress with gaining members, providing resources and meeting their goals.

Title: Research/Data & Project Intern

Name: Yousrah Younous

Preceptors: Angela Centellas (administrative) and Dr. John Gunn (project)

Agency: New Jersey Gun Violence Research Center

Purpose: To study and analyze research that has already been conducted on gun violence in relation to Native American youth and other risk factors, and to identify the gaps within the research, data, and utilize the Youth Risk Behavior Risk Surveillance Survey datasets (YRBSS) to look for gaps.

Significance: Gun violence within schools is a public health issue that has been aching the United States for decades, and an issue that has multitude of layers to it. The Youth Risk Behavior Surveillance System (YRBSS) survey reported that between the years of 2011-2019, the amount of students who did not attend school due to safety concerns have increased as well as the number of students reporting that they are being threatened/injured on school property with a gun, knife, club, or other form of weapon. In those surveys, it is the Native American/Alaskan Native youth that reported the most for carrying weapons to school property and it was this population group that also reported as to not attending school due to safety concerns. Published research prior to 2013 shows that there are numerous factors to both ends of this issue. At the same, there are factors that also impact Native American students' decision making in carrying weapons due to safety concerns and other independent variables that have not yet been explored or answered. Research and data will identify the existing gaps in the research that has been done towards youth safety concerns regarding school versus students carrying weapons to school, and fill in those gaps.

Method/Approach: A literature review was completed to sense the missing gaps in the literature. Following, variables for the research question were listed based on what the YRBS had available and on the reports the YRBS had conducted. SPSS was used in data analysis, and datasets from 2001 until 2019 were used to examine the data regarding the research question being pursued.

Outcomes/Results: Statistical analysis, which was compiled from 2011-2019's worth of data from the YRBS, showed high correlation in certain variables and gun/weapon carrying to school. Variables were examined between males and females categories. In areas where the correlation was not prominent for the females, there was a high correlation for males in the respective variable and gun carrying. Experiencing bullying in school had a 0.05 Pearson Correlation for females. Hours of sleep on a school night for males was 0.6, which is a high correlation, but for females it was at -0.023. The correlation matrix and descriptive statistics found the majority of the independent variables to be statistically significant. A pisson regression was also conducted.

Evaluation/Conclusion: Gun violence in schools is evidently an ongoing public health crisis, and Native Americans are a population that often do not have enough light shed upon that. The results from the SPSS analysis showed that Native American/Alaskan Native males have a larger tendency to be carrying weapons (gun, knife, club, etc) to school compared to Native American/Alaskan Native females. Surveys administered through the YRBS show that from 2001-2019 there has been an increase in Native American/Alaskan Native youth in gun carrying to school, being threatened/injured at school, bullied, lack of sleep, and being involved in physical fights on school grounds.

Title: Social Media Awareness for Renewable Clean Energy

Name: Gordon Zhao

Preceptors: Direct Supervisor: Kate Sundberg

Agency: New Jersey Public Interest Research Group

Purpose: To spread awareness about the 100% Renewable energy campaign to Rutgers students and demonstrate broad based student support.

Significance: With the latest data, Rutgers University consumes 575,472,963 kWh of electricity and 41,533,308 therms of gas. Although Rutgers has taken a step forward to using clean energy such as the solar canopy in Livingston campus, more changes can be made to have Rutgers rely on cleaner energy. NJPIRG is working with Rutgers to commit to 100% renewable energy by 2050, with 100% of electricity coming from renewable sources by 2030. This project will use social media marketing strategies in order to spread awareness and support to Rutgers students.

Method/Approach: Different approaches were taken in order to accomplish the goal of spreading awareness to Rutgers students about the 100% Renewable energy campaign. Two current and two past professors were contacted about the petition in order to share with students. Teams of interns/volunteers gathered signatures during petition week. Six Rutgers organizations across all three campuses were contacted to garner support and foster collaboration. Ten infographics were created and shared on various social media platforms such as Facebook, Instagram, Groupme, Discord and LinkedIn in order to reach out to friends and fellow students. Posts included suggestions to repost and share in order to have widespread influence.

Outcomes/Results: Fifty-seven students reached out for more information as a result of contacting the professors. Twenty-two petition signatures were acquired during petition week. Two Rutgers organizations reached back for an opportunity to collaborate and help assist in spreading awareness. Social media posts received ten likes five reposts.

Evaluation/Conclusion: Collaborations and involvement with the Climate task force has helped establish a need for clean energy. President Holloway announced Rutgers will divest from fossil fuels within one year and will divest from passive index funds with fossil fuel investments. Within 10 years, the university will exit its private fossil fuel investments, which typically take longer to liquidate than other investment types. The investment office will report on divestment progress annually. This is one step closer for Rutgers to rely on clean energy sources.

Capstone Projects

Title: Youth Homelessness: The Forgotten Population

Name: Michelle Aguilar

Purpose: To analyze and dissect the risk factors of youth homelessness and what can be done as a community to prevent it.

Significance: Each year, up to 4.2 million youth and young adults will face a period of homelessness (Youth Homelessness Overview, n.d.). Every night thousands of youth and young adults ranging between the ages of 13-25 are sleeping in areas that are not suitable to effectively shelter a human being. With no legal adult or guardian present, many youth are left to fend for themselves with no sense of security or stability. Poor nutrition and health, criminal activity, sexual abuse and prostitution are risks and consequences of youth homelessness (Betts, n.d.). Youth homelessness is not limited to, but often rooted from family conflict.

Method/Approach: Research was sought in journals, articles, and peer reviewed articles that were found on reliable search engines such as Google Scholar, Rutgers Library, and PubMed. Dependable websites were also used such as non-profit organizations and websites that are government monitored such as the CDC.

Outcomes/Results: Research found that by knowing the risk factors of youth homelessness, limited resources provided by the community would be used more efficiently. Enrollment in schools and completing assignments are some of the challenges the homeless youth face. The Mckinney-Vento Homeless Assistance Act allows for the homeless youth to have the same educational opportunities as their peers by eliminating the barriers that make school challenging. Barriers to healthcare services further progress preventable conditions among this population. Drop-in centers are great to track and enforce a healthy development as mental health and physical services are provided. Drop-in centers also provide homeless youth and young adults with food, water and hygiene products. Regarding LGBTQ community, The Trevor Project works towards making sure policies surrounding home care, foster care and adoption do not discriminate against the LGBTQ community.

Evaluation/Conclusion: A step towards ending youth homelessness before it begins starts with providing the proper resources. There are more programs that help assist the youth and young adults than there are programs to fully prevent it. Youth who are most vulnerable and susceptible to youth homelessness should be targeted and attended to as soon as it is disclosed. Youth involved with public systems such as foster care and the juvenile justice system are also at risk of becoming homeless. The goal is to prevent mental and physical health issues from progressing that could potentially become long term and to break the cycle of recurring recidivism and readmission into the juvenile system.

Title: Effect of Race on Health Outcomes during the Covid-19 Pandemic

Name: Kazi Ahmed

Purpose: To examine the effect of race on health outcomes, through analyzing age-adjusted infection, hospitalization, and mortality rates as well as representation of minorities in Covid-19 cases, and propose public health interventions to mitigate social determinants and structural risks that exacerbate risk of exposure and infection for affected populations in New Jersey.

Significance: The health status of minorities is disproportionately affected by Covid-19, and the public health infrastructure has contributed to underserved communities becoming more at-risk of exposure and transmission of the virus. In New Jersey, analysis of age-adjusted case, hospitalization, and mortality rates show Black and Latinx residents have been affected directly by the disease at double to triple the rates of White and Asian populations (Holom-Trundy, 2020). They are also overrepresented amongst cases in various counties, although their share of the population is lower. The capstone project aims to assess the effect of race on health outcomes and how it affects low-SES neighborhoods or areas with increased exposure.

Method/Approach: A literature review was conducted to analyze nationally-reported hospitalization rates as well as Covid-19 outcomes amongst Latinx, Black, and American Indian or Alaska Native populations and compared against white counterparts in every age group. Additionally, a retrospective cohort study analyzed data from patients in Ochsner Health that tested positive for SARS-CoV-2 in order to understand the relationship between the population of the health system and the primary outcomes which were hospitalization and in-hospital death. In addition, the literature review included an ecology study examining spatial distribution of Covid-19 testing by zip code to investigate if testing is associated with SES or race.

Outcomes/Results: Racial inequity in the pandemic was impacted by significant factors such as access to health insurance, employment, and social determinants such as public transportation and housing situations. There was an increased risk of exposure as people of color were more likely to be lacking health insurance coverage which poses a barrier to testing and treatment services. Additionally, they often were employed in unsafe working conditions and may have been unable to telework or had to use public transportation. Furthermore, communities of color were disproportionately affected by Covid-19 as data shows African-American deaths from Covid-19 were nearly two times greater than would be expected based on representation in population, and Hispanic/ Latinos were in a greater share of confirmed cases than share of population as well in 42 states.

Evaluation/Conclusion: Racial/ethnic minority populations faced a disproportionate burden of underlying comorbidities, and low-income persons were more likely to live in crowded conditions or be employed in public-facing occupations. Better preventive measures and policy solutions can be created to mitigate inequitable conditions for affected populations such as building data collection capacity and transparency, require regular state health racial equity impact assessments, bolster initiatives that develop trust in the medical system, and allocate more resources to hardest-hit communities.

Title: Race and Homelessness in New Jersey

Name: Cody Azari

Purpose: To analyze and assess the state of racial disparities in the New Jersey homeless population, and to develop strategies and potential policies to address homelessness and racial disparities in New Jersey.

Significance: According to Monarch Housing Associates (2020), New Jersey alone has 9,663 persons experiencing homelessness. Of this population, white non-Hispanics make up 25.3% of the homeless population, with Black/African American persons making up 50.2% of the homeless population. Black/African American persons are overrepresented in the homeless population, however, the disparity becomes much more evident when considering that they make up only 12.8% of the total New Jersey population, as compared to white non-Hispanics making up 54.6% of the population. Homelessness in the US is a problem that is intricately woven with race. There is no 'one size fits all' end to homelessness. Ending homelessness must be systemic, broad, and address race in equal amounts. By concerted, sustained effort, ending homelessness and the racial disparities that lie within will become a more achievable vision.

Method/Approach: A thorough literature review was conducted on homelessness in New Jersey and the US. Along with abstract literature, an emphasis was placed on finding reports with expansive statistics and numbers to back the more theorized literature. Then, the data was compiled so that it could be easily communicated to a wider audience through this paper. Additionally, the data was compiled in order for it to be expanded upon, with much more targeted advice on how to end homelessness and the systemic issues that lead to homelessness in disenfranchised groups.

Outcomes/Results: One of the most effective, well-studied ways of ending homelessness would be to supply adequate, rapid housing to the homeless, followed by targeted services such as mental and physical healthcare services, employment opportunities, and other services. For example, nearly 88% of reported consumers of housing first programs remained housed over a five-year period. However, despite its proven success, housing first often ignores the immense problem of systemic racism. In order to address the problem of systemic racism with regards to homelessness and housing, putting protections in place to prevent someone from becoming homeless in the first place.

Evaluation/Conclusion: The state of homelessness is a complex, multifaceted problem that requires many systematic and cultural changes in order to fully address and to end homelessness. However, any discussion of ending homelessness must address the racial disparities inherent in homelessness. By promoting fair and equitable access to housing first programs, the immediate problem of homelessness can be addressed. Next, to prevent people from becoming homeless in the first place, protecting the rights of tenants and signing anti-displacement policies, homelessness can be prevented from the equitable access to housing. Additionally, actions to remove the screening process which determines eligibility to housing would eliminate the racial discrimination inherent in the housing process. Lastly, broad steps can be taken to address homelessness and race nationwide.

Title: Alarming Air: Environmental Injustice in New Jersey

Name: Claire Cancilla

Purpose: To analyze the disproportionate asthma rates among minority populations in New Jersey.

Significance: In the United States, asthma rates are highest among minority populations. Black Americans experience asthma at a rate of 10.2% compared to only 7.7% of White Americans, and American Indian/Alaskan Natives have the highest overall asthma rate at 12.0% (NHLBI, 2020). This trend is also observed in New Jersey, where Black, non-Hispanic adults have a 14% asthma rate, which is significantly higher than the 9% statewide average (NJDOH, 2020). This paper analyzes these disproportionate asthma rates in the context of environmental justice and offers feasible policy solutions that address environmental injustice within the state and simultaneously help reduce asthma rates.

Method/Approach: An observational study was conducted using Geographic Imaging Software (GIS) to analyze asthma rates in correspondence to the location of major air quality permitted facilities and demographic data in New Jersey. The asthma rates were broken down by county and consisted of three groups: 5-6% asthma rate, 6-8%, and 8-11% (NJDOH, 2020). The major air quality permitted facilities were defined as facilities that emit large amounts of hazardous chemicals (New Jersey Administrative Code, 2020). The demographic data consisted of the following groups: White, Black or African American, Asian, American Indian and Alaska Native, Native Hawaiian or Other Pacific Islander, Some Other Race, and Hispanic or Latino (of any race) (US Census Bureau, 2019). GIS maps were created to analyze the relationships among these variables.

Outcomes/Results: The GIS map comparing asthma rates and the locations of major air quality permitted facilities indicated that counties of New Jersey with 8-11% asthma rates correspond to counties with a high number of major facilities. Further, the GIS map comparing asthma rates and demographic data suggest that counties with 8-11% asthma rates also have high rates of minority populations, specifically Black or African American and Hispanic groups. Finally, the GIS map comparing demographics and major facility locations indicates that counties with high minority populations also have high numbers of major facilities.

Evaluation/Conclusion: Since the observational study suggests visually that environmental injustice may be taking place in New Jersey in the form of disproportionate exposure to air pollution, further research is recommended to solidify this finding. Subsequent to further research, a four-pronged approach is suggested, which includes building Breathe Easy homes in highly affected areas, financially compensating those most impacted, raising awareness on the issue through media, and finally implementing policies that increase enforcement of environmental regulations and plan for sustainability.

Title: Ratio of The People Who are Insured and/or Uninsured for healthcare

Within The U.S. Survey

Name: Nilofar Chaudhry

Purpose: To spread awareness about the importance of health insurance and how people can benefit from different types of insurance, whether it be Medicaid, Medicare or private insurance.

Significance: The topic for my research is "The ratio of insured and uninsured people in the United States". Specifically, we are discussing here the amount of people in the U.S. that are uninsured face issues that affect them and the government as a whole. Census is a website that helps us figure out the up to date number of uninsured people, this way we will be able to analyze better with specific statistics. This researched report will help prepare a strategic plan that would bring awareness about the importance of health insurance. The report will state and describe a method that will help the people and the overall government spending on healthcare. One of the ways would be the Medicaid for all plan. The significance of this research is to: Educate the public about the options they have when seeking any medical treatment, define and elaborate the meaning of Medicare, Medicaid and private insurances, create a simpler roadmap for the public to make the wise decision of getting insured, recognizing the issue of how the research will help America as a whole in terms of its yearly spending towards healthcare, and introduce the "Medicare for all" plan and how it can be strategically implemented into our system without losing money that could be used for other major issues.

Method/Approach: The method to approach the objective of this survey/report would include collecting numbers from different reliable sources to get the information on the approximate latest number of people living in the United States either have an insurance, or don't have an insurance, defining Medicare and Medicaid in depth and it's pros and cons, and stating other private insurances and their pros and cons.

The research follows up with a real life case study to present a realistic point of view. At last it approaches towards its outcomes, which presents ideas involving a better future for the public

Outcomes/Results: The outcomes or results from the research are the ways in which the 'Medicaid for all plan' can be enforced. Ways that this 'plan' can be practicalized into reality and what strategic steps Another result/outcome could be; patients with low income can apply for Medicaid and receive access to healthcare Patients who are 65 or older can apply to Medicare and receive access to healthcare Patients can also familiarize themselves with private insurance as different insurances have different packages and plans they offer which vary by coverages for the ER, prescriptions, rehabilitation etc.

Evaluation/Conclusion: The expected conclusion would be to be able to persuade the audience into the idea of a type of universal healthcare aka 'Medicare for all'. Also, to help the overall spending on healthcare in the U.S.

Title: Up in the Air: Occupational Hazards of Pilots

Name: Jacob Cytroen

Purpose: To analyze various occupational hazards of pilots and determine ways to increase safety.

Significance: Every year, hundreds of pilots and their passengers are killed globally in accidents which are largely avoidable. While commercial aviation has statistically never been safer, there are a variety of issues which must be addressed to avoid future accidents (Bureau of Traffic Statistics, 2021). Changes to policy, technology and pilot training are all necessary in order to maintain the safety and public trust of air travel. Specifically, the three types of accidents that can be stopped with these simple changes include controlled flight into terrain (CFIT), mid-air collisions and pilot fatigue-related accidents (National Institute of Occupational Safety and Health, 2018).

Approach: A comprehensive review of National Transportation Safety Board (NTSB) accident data along with Federal Aviation Administration (FAA) regulations and advisories was performed. Different kinds of commercial aviation operations require different sets of regulations which were compared in order to recognize regulatory and safety gaps to eliminate. Additionally, specific examples of CFIT, mid-air collision and pilot fatigue-related accidents were examined in order to determine areas where improvements could be made. A review of existing technologies was made which have the potential to be implemented and reduce commercial aviation accident rates.

Outcomes: A large number of regulatory concerns exist which cause a real risk toward safety practices. While scheduled airline operations are extremely strict with safety measures, smaller charter operators which many rural communities rely on are not held to the same standard. However, many of these regulatory gaps can easily and relatively cheaply be solved with technology or training changes. In order to minimize CFIT and mid-air accidents, the FAA can mandate equipment requirements for charter and other commercial operators which warn the flight crew of an impending hazard. In the case of pilot fatigue, training and operating practices can be altered in order to reduce its prevalence among pilots. By implementing these changes, the health of pilots as well as the overall public can be improved and more trust can exist toward these operations.

Conclusion: CFIT, mid-air collisions and pilot fatigue represent three of the most fatal causes for aircraft accidents especially among non-airline operations (NTSB, 2016; National Institute of Occupational Safety and Health, 2018). While the technology exists to reduce these risks greatly, the lack of regulatory action by the FAA allows these hazards to loom unnecessarily among the flying community and the general public. Much of this is due to the conflicting roles of the FAA which aims to both promote safety as well as promote aviation. When altering safety regulations, the FAA must take into account cost and burden put onto operators in order to adhere to those regulations. Moreover, the proposed changes would have to be certified and approved which would incur both a temporal and financial cost. Regardless, implementation of these changes would create a large public health improvement for pilots as well as the general public who rely on safe aviation transportation.

Title: Health disparities amongst Latinos in the US

Name: Heidy Guzman

Purpose: To evaluate the cause and effect of health disparities amongst the Latino community in the United States.

Significance: The recent increase in the studies conducted on the Latino community has allowed for greater insight on health disparities that affect them in this country. Even though this population keeps growing at an exponential rate, they continue to be the population with the highest risk of health disparities. According to Willerton (2008) the disparities that they face include high cost of care (52.4%), lack of health insurance (44%), language (37%), fear of the system (27.8%), transportation (7.9%), and lack of knowledge of available services (5.2%). These barriers decrease the likelihood of seeking medical care no matter how serious the condition may be. Latinos are even less likely to receive care for their mental health for which they are at higher risk than the rest of the US population. This group is more vulnerable to marital distress, family problems, depression and anxiety which are usually left untreated (Willerton, 2008).

Method/Approach: Samples and studies of different groups of Latinos have been studied by different scientists in order to gain better insight on the problems Latinos face. The Rutgers library, google scholar, and government sites will be used to retrieve information. The US census is able to tell us an accurate number on Latinos in the US as well as showing us how much the population has grown in the last 20 years. Although the numbers for the 2020 census are still being confirmed, it is a fact that the Latino community grew by 43% from 2000 to 2010. Even though this population has been growing at exponential rates, their needs and health rights are not being met. This has caught the eye of many scientists in the US such as Elaine Willerton, William Vega, Elisa Quiroz, and many more. Each one of them have taken a deeper look into the different disparities that affect this population. These studies allow this research and study to be accurate and relatable.

Outcomes/Results: This research will raise questions and initiate important conversations over the disparities that Latinos face in the US. Being able to educate others on this topic and move towards change are some of the goals of this study. Some of the difficulties that this population faces may be very obvious to the public eye, but it is important to also shine a light on the mental health of Latinos and the LGBTQ community that exists within this community.

Evaluation/Conclusion:

Being able to take surveys and review the responses of readers have the potential to be measured. The surveys will not be administered to governors, mayors, etc., instead they will be given to Latinos in communities all over the nation because only they can confirm if change has occurred. The real way to measure the outcome of this study is going to be to take a look at this nation and see how it has changed in regards to the minorities that suffer from lack of resources. There is a possibility that there will be no change or that there has been some change in certain areas but not others.

Title: Understanding Why Maternal Mortality Rates are Highest Amongst Black Women than

any other Racial Group

Name: Mychelle Harris-Williams

Purpose: To examine racial disparities in pregnancy-related deaths.

Significance: In 2017, there were considerable racial disparities in maternal mortality rates in the United States. Per 100,000 live births, an estimated 41.7 non-Hispanic Black women died from pregnancy-related complications. Unfortunately, the risk of death by race may be due to various factors such as access to care, structural racism, and implicit biases. In states with lower maternal mortality rates and among women with higher levels of education, significant differences in maternal mortality rates persist between non-Hispanic Black and White women. This discovery suggests that the disparity in pregnancy-related death that black women experience is a complicated national problem.

Method/Approach: To delve deeper into the driving cause of unfavorable health outcomes experienced by Black women during pregnancy as opposed to expectant mothers that identify with other racial groups, scholarly journal articles were utilized to perform a comprehensive analysis. Causes for the health disparities were identified by thoroughly reviewing scholarly sources. A literature search was conducted using the Rutgers library, Google Scholar, Journal Storage (JSTOR), Academic Search Premier, and government sites to gather relevant data and statistics.

Outcomes/Results: Through a comprehensive analysis of scholarly literature, obvious root causes for health disparities in maternal mortality rates in the United States stemmed from systemic racism that disproportionately affects Black women. Further analysis supported a strong correlation between health outcomes and quality of care which demonstrated that not all mothers received the same treatment during prenatal visits. Higher rates of Black expectant mothers felt more discriminated against than their White counterparts. Research indicates that offering the best standard of care in obstetrics tends to decrease inequalities in maternal mortality and hospital-related complications.

Evaluation/Conclusion: There is a pressing need to increase the quality of care in obstetrics provided to Black women. This can be accomplished by improving the delivery of obstetric healthcare in America. Critical interventions are needed to eliminate the inequalities in obstetric health. Data should be retrieved prior to interventions and immediately after to determine whether or not the system is working. To reduce the likelihood of implicit biases, data should be collected from both the providers and patients. In the event that the interventions are unsuccessful, further dismantling of the system may be required to completely rebuild a system that works for everyone. These efforts may include a total reconstruction of policy, a set of new standards in the delivery of healthcare in obstetrics, and the diversification of health providers and policy makers.

Title: Racial and Income Disparities Within Environmental Health

Name: Simonne Hrinkova

Purpose: To analyze the disparities in environmental health among minority and low-income populations and propose possible interventions to reduce disparities.

Significance: The environment is an important determinant of health, and an estimated 23% of global deaths occur due to preventable environmental factors. Some of these factors include chemical or biological hazards and climate change, disproportionately impacting low-income communities and communities of color. Researchers have studied the underlying causes for these inequalities and have found that they may stem from racism and segregation along with the inherent structure of capitalism (Brulle and Pellow, 2005). These causes have left long-lasting effects which place a higher health burden on populations that already have diminished access to adequate healthcare. This paper further explores the causes of environmental injustice and possible interventions to reduce disparities.

Method/Approach: A literature review was completed on previous environmental health journals in order to delve deeper into the driving cause of the inequalities that exist. Through the review of scholarly journal articles, certain causes of health disparities were identified, along with the impact the environment has on health and possible solutions to the problem being addressed. The literature provided a basis for further analysis and suggestions for evidence-based best practices aimed at improving environmental justice.

Outcomes/Results: Through in-depth analysis of scholarly literature, the significant root causes for environmental health disparities were found to be produced by systemic racism and the capitalist ideologies in the US. Pervasive racism has led to the unequal distribution of environmental hazards in addition to exclusionary-principles that have limited certain individuals from participating in decision-making processes. The literature also highlighted that more affluent communities benefit from capitalist ideals, while the poor and minority communities are left to deal with the environmental hazards and degradation. Further analysis supported a strong correlation between environment and health, demonstrating that not all environments are created equally since low-income and minority groups are more likely to live closer to hazardous waste sites and in poor quality homes that contribute to asthma and lead poisoning.

Evaluation/Conclusion: After analyzing previous literature on environmental justice, three best practices were created, including adding more green spaces to urban areas and improving access, community empowerment initiatives, and environmental health education. The impact of green spaces on urban areas can be measured through perceived health outcomes of individuals and compared to health outcomes prior to the addition of the green spaces. Community empowerment and environmental health education will serve as effective strategies to improve community relationships and allow members to advocate for themselves and their health at all levels of government. Overall, despite the environment being an evolving and complex part of health, there are interventions that can be implemented in order to reduce the burden of hazardous waste and pollution being placed on low-income and minority groups.

Title: The Expansion of Telemedicine and the Associated Impact on Cybersecurity

Name: Saidya Iqbal

Purpose: To analyze the relationship between telemedicine and the increased risk of cyberattacks, in order to understand the effect it has on a health administrator's role and an organization's cybersecurity.

Significance: With the introduction of COVID-19, the rate of cyberattacks within healthcare institutions has grown astronomically. There has been a 45% increase in the number of cyberattacks in the healthcare industry from November 2020 to January 2021 ("Playing with Cyberattacks," 2021). This is more than double the increase in cyberattacks across all other industries worldwide within the same period of time. Healthcare organizations heavily rely on software applications running on multiple computer networks. The efficiency of healthcare depends on the use of computers and therefore they must be running smoothly while remaining free of cyberattacks. The common and emerging cyber threats in healthcare are data theft for financial gain, data theft for the impact, ransomware, data corruption, denial of service attacks, business email compromise, and the unwitting insider (Martin et al., 2017). This project explores the effects of the expansion of digital technology use in the healthcare field, how it affects cybersecurity, and the role health care administrators play in this dilemma.

Method/Approach: Information on cybersecurity within the healthcare field was gathered primarily through Google Scholar and the Rutgers Library database. The types of sources used include scholarly publications, government documents, documentaries, and books. All research derived from these sources evaluated the adoption of telemedicine due to the COVID-19 pandemic, the importance of cybersecurity in the healthcare system, what role the administrators play in maintaining cybersecurity, the effect telemedicine has on cybersecurity of patient information, and the effect telemedicine has on cybersecurity of healthcare organizations.

Outcomes/Results: Research uncovered that there is a positive correlation between the use of computers and cyberattacks. As the use of computers increased, the risk of healthcare organizations suffering from cyberattacks also increased. The sudden need, derived from the COVID-19 pandemic, to transition to primarily using telemedicine, has greatly increased the rate at which organizations are being digitally attacked. Cybersecurity dilemmas directly impact a health administrator's ability to perform their job roles, such as managing patient care and record-keeping. To address the increase in cyberattacks, there should be better preparedness within all levels of healthcare organizations.

Evaluation/Conclusion: It is important to address the lack of preparedness for adopting telemedicine into the healthcare field and the sudden need to transition to the use of telemedicine due to the onset of the COVID-19 pandemic. These factors directly affect the risk of cyberattacks. The need to rely heavily on digital technology within the healthcare field now, has shifted the way healthcare is provided to patients and therefore this transition is not temporary. The COVID-19 pandemic acted as a catalyst for the use of telemedicine which will continue to be used even after the pandemic ends. Therefore, if proper training is implemented, adopted, and taught within healthcare organizations, all health professionals can work together to decrease their chance of suffering cyberattacks and improve overall cybersecurity.

Title: Impact of COVID-19 on Racial Minority Groups in America

Name: Seo Young Jeong

Purpose: To assess the disproportionate impact of COVID-19 on racial minority groups in America and promote equity in healthcare.

Significance: During the COVID-19 pandemic, it has become evident that health and social disparities disproportionately affect racial minority groups. The Centers for Disease Control (2020) found that these minority groups are more susceptible to contracting COVID-19, more susceptible to dying from the disease, more likely to be a part of vulnerable populations, and have less access to testing. These findings indicate that there is a disproportionate impact on racial minorities, and show that there is a gap in understanding the underlying causes. Evidence based interventions will address the underlying issues that cause health inequities.

Method/Approach: A retrospective study was done to analyze the disproportionate impact of COVID-19 on racial minority groups in America, particularly in New York City and Chicago. A literature search was conducted using Medline and Academic Search Premier to gather relevant data and statistics from peer reviewed journals; the CDC and FDA were referenced as well.

Outcomes/Results: Since the beginning of American history where slaves were forcibly brought over from Africa, there has been an unspoken, but acknowledged, racial hierarchy. This led to a series of events where White Americans were seen as superior to other races and caused a domino effect of inequity. It has been concluded that systemic racism is at the root of the disproportionate impact of COVID-19, as well as the health inequity that racial minorities face. Vaccine Trial data from Pfitzerr-BioNTech, Moderna, and Janssen all show that racial minorities were significantly underrepresented. White people made up the majority of the trial population (81.90%, 79.40%, and 62.10%, respectively), while Black people (9.80%, 9.70%, and 17.20% respectively), Asian people (4.40%, 4.70%, and 3.50%, respectively), American Indians/Alaskan Natives (0.60%, 0.20%, and 8.30% respectively), and Native Hawaiians/Other Pacific Islanders (0.20%, 0.20%, and 0.30%, respectively) were unproportionally represented. By addressing the root of the issue, society as a whole can start to make changes that promote equity.

Evaluation/Conclusion: The success of this study can be measured by looking at policy changes and health outcomes for minority groups compared to their White counterparts. Data should be taken before and right after interventions are put in place; this will show an indication of whether or not it is working. If the intervention is successful, data should be taken in three month intervals to ensure that it is continuing to work. If they are not working, changes can be made to the original intervention. Additionally, there were a few limitations to this study. As this study is focusing on current events, it was difficult to find sufficient data to include in this study; this data may also become inaccurate as time passes and more information comes to light. There may have also been some implicit biases that affected the way that the data was interpreted.

Title: Analysis of The Opiate Epidemic in New Jersey

Name: Usman Khan

Purpose: To analyze the opiate epidemic in the New Jersey area and see how opiate-related overdoses and deaths have increased or decreased over the last few years. And to suggest implementations that could lead to fewer opiate overdoses and deaths in the future.

Significance: Between January 1st 2020-December 31st 2020 the suspected opiate overdose death amount was 3,046 deaths. This project is used to address the rate of opiates related overdoses and deaths in the NJ area. "The data is for New Jersey as a whole, unfortunately, there is no research done on specific parts of NJ". Working with a recovery center in NJ will give a better understanding of the numbers at play in the New Brunswick area. This project will identify the risk factors for Opiate Overdoses in NJ and how to avoid these possible risks.

Method/Approach: A review is in place to get a better understanding of information in the greater New Brunswick area, working with local recovery centers will lead to more information on the epidemic as a whole. After contacting various recovery centers, information is in the works on the amount of clients that have been admitted in the past calendar year. Whether these clients have ever overdosed or what led them to be admitted to the recovery centers will be documented. What the risk factors are, and how they can be avoided. The strategies that can be implemented to help prevent future overdoses.

Outcomes/Results: The outcomes and results show that after working with a recovery center in the greater New Brunswick area. that after a year in which overdose deaths fell from 2019-2020; the data that was compiled shows that admissions at the rehab center were up in the calendar year of 2020. In the year 2019-2020 the Recovery Center had a total of 83 admissions for opiate-addicted patients. While in the year 2020-2021 the recovery center had a total of 97 admissions for opiate-addicted patients. Also after checking in with multiple pharmacies the only pharmacies that administered over-the-counter Naloxone were the CVS pharmacies in the greater New Brunswick area.

Evaluation/Conclusion: Evaluation shows that in the greater New Brunswick community opiate-related admissions in the rehab have gone up over the past year. The community as a whole has to implement proper procedures such as making sure that doctors are not overprescribing medication as well as making the opiate epidemic taken more seriously by everyone in the community. As mentioned before better efforts have to be put in place to eliminate certain risk factors when it comes to overdoses. One way these efforts can be put in place is to make Naloxone or Narcan (a drug to reverse overdoses) more accessible to the general population. Putting Naloxone in all Walgreens and Rite Aid Pharmacies will make it easier for anyone to get them so if they ever run into an overdose they can handle the situation correctly. Lastly treating the opiate epidemic as a national health crisis rather than criminal cases by the judicial system in NJ.

Title: Enhancements to the Patient Identification System

Name: Tehseen K. Khokhar (T)

Purpose: The proposal aims to mitigate medical error and data compromises by developing a strategic plan to improve patient identification within the healthcare industry of the United States.

Significance: Within the United States, the healthcare system approximately loses \$7.2 billion annually to costs of medical errors and data breaches (David et al., 2013; Kessler et al., 2020). These two issues have caused catastrophic damage to even the best healthcare systems within the United States. Approximately 251,000 deaths occur annually from medical error, making it the third leading cause of death in the United States. Furthermore, in 2015, cyberattacks on medical information have increased 22% a year (Anderson & Abrahamson, 2017; Kruse et al., 2017). The data indicates that the healthcare system within the United States is failing at protecting the patient and protecting their confidential information.

Method: The proposal consists of four stages based on the critical areas identified within the literature review. Stage one (The Design) involves creating the new patient identification cards for the United States population, using the radio frequency technology/emv and aluminum within the design (Lacmanović et al., 2010; PubChem). This stage will be assisted by this proposal as a model is provided. Stage two (Legislation) consists of passing legislation within the United States, mandating that insurance companies must be updating the technology within cards to allow rapid patient identification. This stage aims to require health insurance companies to be at the same level as Medicare and Medicaid-supported insurance companies. This step has been based on the Systems Management Theory (Teece, 2018), as different players exist within the healthcare industry regarding the United States. They must be brought on the same mission to increase longevity in life. Stage three (Implementation) provides the recommended steps the National Association of Insurance Commissioners should take to implement the patient identification system within the Medicaid and Medicare supported insurance cards. This part of the step will be using the behavioral economics principles, intrinsic behavior, and the contactless payment system as the model of success to help begin the implementation (Lacmanović et al., 2010; Skinner & Volpp, 2017). Stage four (Evaluation) will be setting benchmarks that the proposal aims to reach and methods to evaluate the patient identification system.

Outcomes/Results: The outcomes of this proposal will be based on the triple aim framework, which is to improve health, patient experience and reduce the per capita cost of healthcare. Implementing this project plans to reduce the per capita cost of healthcare in the United States by creating a project that collects revenue. Using local DMV's as a location to update the Medicare and Medicaid I.D cards, this recurring ID can also be charged a similar fee as the driver's licenses cost. The end outcome is to improve the patient experience by reducing medical error, provide insurance to all Citizens (improve health), and lower per capita spending on healthcare by not spending but generating a source of cash flow. This proposal assists the development of the bigger picture in regards to a National Patient Identification System.

Evaluation/Conclusion: this proposal has provided a way for the United States to not only evaluate healthcare continuously but generate a form of income from the evaluation. The use of the financial in updating the medical identities every four years will require patients to update health information. Limitations of the project are based on the amount of time needed to pass the Litigation stage of the proposal, as mandates and legal action require time to make a decision. All ideas take time to be discovered. This proposal provides the first step to developing a better way to identify patients within the United States.

Title: Analyzing the Impact of Social Media on Mental Health Disorders

Name: Simran Lalwani

Purpose: To analyze the effects of social media on mental health disorders between youths ages 12-30 and propose potential interventions or legal considerations for corporations.

Significance: Adults experiencing mental illnesses and suicidal ideation amongst youths have increased from last year before the COVID-19 Pandemic (Mental Health America, 2021 The State of Mental Health in America, 2021). With the rise of technology, a social world has been created in which mental health disorders are exacerbated. In past years, there have been few attempts to regulate a largely capitalistic system in which websites monetize personal information and therefore people themselves. This paper will go on to show the clear connection between mental health disorders and social media as well as the solutions which include working with governmental bodies to regulate technology and the development of programs to counteract the increase of mental health disorders for the welfare of all.

Method/Approach: In order to gather evidence for social media and its effects on mental health, research from various databases have provided information on highlighting the decrease in mental health in the last ten years. Statistics regarding mental health disorders have been collected from national databases. Over 23 articles and reviews were found defining or dissenting causative factors in screen-based media for increased rates of depression, anxiety, and loneliness.

Outcomes/Results: Within the articles seeking to define negative symptoms of social media use, it has been found that anxiety and depression as well as an addiction to technology is increased. There has also been an increase in issues with self-image, self-esteem, and increased reports of loneliness. A majority of the studies found definitive correlations certain studies have countered potential factors. For example, time spent on social media was found to not be correlated with worsened overall mental health in one study, yet, another study has shown that idle use of social media has been connected to higher rates of depression. These studies suggest that there is a greater need on a population level to address mental health in relation to social media and technology. The recommended proposals are multifaceted by calling for self-regulation of corporations, legislation to treat social media companies as their own entities (thus allowing for governmental regulation), and a comprehensive education of technology through digital literacy curricula.

Evaluation/Conclusion: With the growth of technology and mental health disorders, there is a greater uncertainty in what exactly needs to be addressed in order to improve overall health. There are many limitations on the research done such as the absence of operationalizing healthy use versus unhealthy use of technology. Other areas of exploration worth noting are defining positive peer relationships or positive mental health and their relation to technology; technology can be used as an avoidance mechanism and can therefore temporarily alleviate negative mental health symptoms leading to perceived happiness. This can skew self-reported mental health status and hinder efforts to pinpoint aspects of technology that are harmful. Also, research into the effects of algorithms on human psychology is relatively new and vague given the limited information available. With more focused research, proper changes on a population level can be implemented in order to improve overall mental health. This can be observed through careful monitoring of mental health prevalence in the United States as well as greater research and control of external factors for what affects mental health.

Title: The Current State of Veteran Mental Health Services

Name: Ariel Luna

Purpose: To address the barriers to access of mental health services with active duty and post 9/11 veterans.

Significance: This project is important because military members are a frequently overlooked population within the healthcare sector. Unlike most healthcare cases within the United States veterans are often included among those with the most complicated medical needs such as both mental and physical issues, while veterans often rely on money from the federal government as well as mandates that sometimes make it difficult, and sometimes impossible, for them to receive the care they need. This project places an emphasis on the utilization of mental healthcare by veterans, this will look at a variety of factors which include active-duty members, members in a post-deployment status as well as former members of the military. This project attempts to help resolve the need that veterans require more support whether it be funding or moral. In a journal published Aug 2014 of the 2,230 soldiers who received a PTSD diagnosis after returning from Afghanistan only 22% sought out a mental health care visit and 41% received minimally adequate care. This project will delve into factors that contribute to abysmal numbers of veterans seeking care.

Method/Approach: This project is going to be conducted by revieweal of already established peer reviewed journals detailing various factors which play into how it shaped the current state of veteran mental healthcare. The tasking for this assignment will be a fact-finding mission to find articles and statics on how military culture and government funding played a role into loss of confidence with the care provided by the Veterans Administration.

Outcomes/Results: With this understanding we can produce better an understanding of how to overcome the barriers to access in the mental health industry. The product of this project will be recommendations to policy makers to better assist them in setting new guidelines for the military and the veterans administration to give a higher level of care then what is currently offered to active-duty and veterans alike. Using a mixture of qualitative and quantitative metrics to better determine patient satisfaction with be critical to measuring success of this assignment.

Evaluation/Conclusion: The evaluation of the project will be conducted using quantitative and qualitative metrics as previously mentioned. The methods used will be anonymous patient satisfaction surveys conducted post-treatment as well as an optional interview to give caregivers a more accurate understanding of the treatment the patient received as well as process evaluations. If this project works, we would be able to see lawmakers push for reform regarding the Veterans Administration staffing and funding concerns as well as more inquiries as to the practices in how our active-duty members receive the mental health assistance. If it works, we should see more military members seeking out care without barriers to care such as financial or merely the stigma associated with someone seeking care.

Title: Examining Differences in Infant Mortality Rates Between the Top and Bottom Rated

States in the U.S.

Name: Emily Lyles

Purpose: To assess the differences in policies and demographics in relation to varying infant mortality rates between the top and bottom-ranked states in the United States.

Significance: The overall infant mortality rate in the United States is 5.7 deaths per 1,000 live births (CDC, 2020b). Within the United States, the infant mortality rates (IMR) range from a low of 3.6 in New Hampshire to a high of 8.3 in Mississippi (CDC, 2020a). These states vary by policies, race and ethnicity, and access to prenatal care, which are factors that contribute to different infant mortality rates within the U.S. (Brown Speights et al., 2017). The gaps between the highest and lowest-ranked states of infant mortality rates were evaluated to create a better understanding of discrepancies between infant mortality rates within the country.

Method/Approach: Multiple scholarly sources such as the CDC and the American Journal of Public Health were used to create a holistic view of the impact of different factors on infant mortality rates. One area evaluated was the relationship between race and infant mortality, as well as the differences within the black population between high and low-rated states. Differences in policies were also discussed, such as Medicaid expansion in some states that offer pregnancy, maternity, breastfeeding support, and contraception, which can improve IMR (Bhatt & Beck-Sague, 2018). Another policy explored was the mandatory paid maternity leave in some states, which can have an impact on lowering IMR.

Outcomes/Results: There are a multitude of different policies and recommendations to explore in regards to infant mortality rates. Adopting Medicaid expansion showed a 50 percent greater decrease in IMR than in states that did not accept Medicaid expansion (Bhatt & Beck-Sague, 2018). This also applied to African Americans, exhibiting more than twice the decline in IMR than African American infants in non-Medicaid expanded states, such as Mississippi (Bhatt & Beck-Sague, 2018). Paid maternity leave can positively impact a child's well-being because the mother can care for and breastfeed their child without working (Rossin, 2011). Five states, including New Jersey, have implemented paid maternity leave, and they also rank in the bottom 11 in terms of IMR suggesting that this policy has an impact on positive birth outcomes (CDC, 2020a).

Evaluation/Conclusion: Although the United States is heading in the right direction for reducing infant mortality overall, some states need extensive policy changes to combat this issue, such as Mississippi. Mississippi, ranked last in the U.S. in terms of overall health in 2017, lacks education, prenatal care, and is impacted with high child poverty (America's Health Rankings, 2017). Implementing sex education and prenatal care programs can be a feasible option to improve birth outcomes. In regards to the high black population in Mississippi, more research needs to be conducted to create practical policies for black women. Increasing overall spending can also improve birth outcomes, which can be a difficult task in light of the COVID-19 pandemic, although President Biden recently signed a pandemic relief bill that includes child benefits which could improve child poverty rates. Measuring the success of these suggestions will take time once implemented, but is a step in the right direction.

Title: Aid for New Jersey's Opioid Crisis

Name: Amisha Manhas

Purpose: To analyze the opioid crisis, as a whole, and evaluate the current methods of treatment to find the best practice and method of prevention.

Significance: Drug related overdoses have contributed greatly to the unintentional and preventable deaths that occur. Seventy percent of the overdoses that occurred during 2018 in New Jersey involved opioids (NIDA, 2020). Opioids refer to natural opioids (e.g. heroin, morphine, codeine etc.), semi-synthetic opioid analgesics (e.g. oxycodone, hydrocodone etc...), and synthetic opioids (e.g. methadone, fentanyl etc). This can be due to a number of reasons, one of which being the over prescription and administration of opioids by medical professionals. Due to opiates' addictive nature, many individuals who are on these medications for a limited time become accustomed to it and seek additional ways to find that pleasure.

Method/Approach: I began with a literature review to gain more basic information on what opioids are and what they are commonly used for. After reading various articles about problems associated with the long-term use of opioids, it was clear that further examination regarding risk factors needed to be done. By examining the longitudinal opioid administration and overdose rates of individuals in NJ over the last ten years, the magnitude of this public health concern became evident. Data on current opioid users was difficult to come by due to the stereotypical thought many hold over addicts. Drug-related hospitalization and overdoses were easily identified because individuals are able to be counted at a facility.

Outcomes/Results: Evaluative research on the opioid epidemic topic concluded that more intervention needs to be incorporated into opioid treatment in patients, some of which include behavioral and stress management therapy (Robinson & Wilson, 2020). Similarly, those that are already suffering the consequences of opioid abuse should consider MAT as a proper treatment option (Center for Substance Abuse Treatment, 2005). It is important to note that MAT should not be given without the use of other behavioral therapies to ensure that the individual is targeting the behavioral aspects of addiction, as well as the physical.

Evaluation/Conclusion: Longitudinal research allows for the implementation of evidence based practices in curbing opioid addiction. Based on research, medically-assisted therapies, in combination with support groups and information sessions would allow an opioid addict to become and stay clean in a safe and medically-supported way. By performing screenings on incoming opioid patients and continuously evaluating their feelings on treatment, the beneficial aspects of the treatment become apparent. Education of the implications of opioids needs to be implemented in medical training facilities as it would lessen the amount of opioids prescribed to known and unknown substance abusers.

Title: Examining the Source of the Prescription Drug Misuse Epidemic in New Jersey

Name: James Mania

Purpose: To analyze the severity and various aspects of prescription drug misuse in New Jersey and examine the effectiveness of tools/programs currently being used across the United States to combat the epidemic.

Significance: America has been in the middle of a prescription drug epidemic for the past 20 years. In 2015, it was reported that 91.8 million (37.8%) Americans used prescription opioids and that is excluding people who were institutionalized. 4.7% of those Americans reported the misuse of their prescriptions. 1.9 million (0.8%) Americans reported that they had a use disorder (Han et al., 2017, p. 293). In New Jersey, the rate of 38.9 opioid prescriptions per 100 people is low compared to other states (*New Jersey: Opioid-Involved Deaths and Related Harms*). However, recent NJ county data on drug-induced deaths told a different story of the epidemic in NJ. The national rate of drug-induced deaths per 100,000 people is 22.8 and only 5 out of the 21 counties in NJ had death rates lower than the national rate. Due to the population density of NJ, it has many urban areas, which have been at the epicenter of the epidemic (*New Jersey Death Certificate Database*. (n.d.). Camden County has suffered greatly from the opioid epidemic due to its urban setting that produces poverty and increases drug availability. (Healey et al., 2018, p. 134).

Method/Approach: This study was carried out through an examination of various existing sources that were obtained through Rutgers Library database and Google Scholar. These sources included scholarly publications, database, reports, and books. The research gathered from these sources encompassed valuable data on the status of the Opioid epidemic in NJ and the rest of the U.S.A. An emphasis was placed on locating reports with data covering state-led initiatives on combating prescription drug misuse. An analysis of these initiatives was completed with the intention of studying and comparing the effectiveness and variables of these initiatives state-by-state. Compiling and comparing this valuable data and information allows for a more targeted tactic in developing and implementing a successful initiative for New Jersey to effectively combat prescription drug misuse.

Outcomes/Results: Florida was the first state to utilize data in combating the epidemic. Florida decided to target distributors like pain clinics to regulate from dispensing opioids and stopped providers from dispensing them. In result, Florida ended up decreasing the number of opioid prescriptions over the course of five years in counties by 80%. It also managed to cut opioid overdose deaths by 50% in two years. (Johnson et al., 2014) That decline in overdose deaths was monumental because they ended up being the first state to successfully reduce the incline of overdose deaths in their state.

Evaluation/Conclusion: By conducting longitudinal research on the various aspects of the prescription drug misuse in NJ, a successful initiative can be executed to combat the epidemic. Based on the initiative that Florida successfully applied, developing an intervention to gain access to the opioids being supplied to the areas with the most substance use can help control the distribution of them without causing a rise in illicit drug use. Additionally, enacting a data driven initiative to establish the jurisdiction into acquiring and collecting data is imperative to ensure preventable measures are ready and can be quickly executed.

Title: The Importance of Registered Nurse Acquisition and Retention

Name: Taylor Montella

Purpose: To analyze turnover rates of registered nurses and focus on what employees look for to stay long term in their positions.

Significance: Each year, the healthcare industry has fallen right behind the hospitality industry with the highest turnover rates. Hospital turnover rates for 2020 increased by 0.9% and set a new record for the decade. Since 2014, the average hospital has turned over 87.8% of its entire workforce, and the data suggests this trend will only increase in the coming years. Turnover rates are linked primarily to employee burnout. These high rates are challenging for HR leaders in healthcare with their overwhelming workload of hiring, managing payroll, etc. Hiring is one of the most expensive parts of people management processes. The high turnover rate takes away from expanding programs, investing in new equipment, or building new facilities. This paper will review factors that contribute to turnover and possible solutions.

Method/Approach: Data was compared from multiple hospitals within the United States. Research was conducted to identify what prevents turnover. Due to the global pandemic of COVID-19, the 2019 National HealthCare Retention & RN Staffing Report was used instead of 2020. Data was broken down into two categories. Of the employees that responded to the staffing report, a large majority fell under the category of Full/Part time. There was also a large percentage (60.9%) of employees which includes full time, part time, per diem, pm, casual, occasional, etc. Hospitals who only include Full and Part-Time classifications and exclude all other employment classifications in their reports were directed to use the "Full/Part Time" statistics for comparative purposes.

Outcomes/Results: The top reasons why RNs voluntarily resigned are salary, retirement, scheduling, workload/staffing ratios, immediate management, commute, and benefits. The cost of turnover can have a profound impact on the diminishing hospital margin and needs to be managed. According to the survey, the average cost of turnover for a bedside RN is \$52,100 and ranges from \$40,300 to \$64,000 resulting in the average hospital losing \$4.4M – \$6.9M. Each percent change in RN turnover will cost/save the average hospital an additional \$328,400. The national turnover rate for RNs is 15.9%. The survey shows that med/surg, critical care, telemetry, emergency, behavioral health, and stepping down have the highest turnover rates.

Evaluation/Conclusion: It is the hospital's value of their people that will have a direct correlation to their commitment. Building programs to help reinforce these values is important to drive retention. Although hospitals are aware this is the key to retention they are slow to design a strategic plan. Labor and overtime usage are another component of hospital vacancy rate. Hospitals need to build retention capacity, manage vacancy rates, and control labor expenses.

Title: The Potential Drawbacks & Benefits of Cybersecurity in Healthcare Telehealth

Name: Neil Parikh

Purpose: First to analyze the most common causes of current healthcare data breaches and second to implement cybersecurity countermeasures to combat these threats based on models that have found success in analogous situations. This project aims to address cybersecurity threats affecting the Rutgers Student Health organization and their consequences by providing recommendations for data security.

Significance: The healthcare industry has seen rapid adoption of technological implementations that have resulted in new developments in medicine. Most notably, today's healthcare environment is heavily dependent on "big data" in the form of medical records such as electronic health records (EHRs). While the widespread use of digitized medical data has improved patient outcomes, healthcare organizations are at the mercy of cyberattacks. These data breaches have heavy consequences for both patients and healthcare organizations both financially and with regard to patient outcomes. In 2014, healthcare providers lost an average of \$113 million of lifetime patient revenue for each data breach. (Accenture, 2016). Lost revenue via medical identity theft as a result of data breaches also comes with consequential financial losses. A separate study estimates that the cost of class action lawsuits settling HIPAA breaches averages around \$1,000 per victim and (Alder, 2021).

Method/Approach: The most common types of data breaches will be thoroughly analyzed first in order to survey the scope of what cybersecurity threats exist. Additionally, the specific negative influences that these threats bring upon healthcare systems will be thoroughly explored. Then, the root causes surrounding each of these cyberattacks will be examined in order to better understand what preventative strategies can be implemented. Lastly, based upon this analysis, the paper will present tailored needs of the Rutgers Student Health system specifically by tailoring other models of success into local context. In addition, this analysis will also consider the legal view as it relates to medical privacy laws such as HIPAA.

Outcomes/Results: Preventative strategies such as more comprehensive employee cybersecurity training has been found to be effective in reducing the chance of a cyberattack, as many of these threats are caused by carelessness when working with technology. Additionally, implementing an incident response plan is also an effective strategy because it can mitigate the amount of exposure that a healthcare organization faces from a cyberattack and improves recovery time.

Evaluation/Conclusion: If these recommendations are implemented into the Rutgers Student Health system, the organization will be able to more effectively defend itself against cybersecurity threats. As evidenced by analysis in the earlier sections, adhering to these guidelines can help RSH protect patient data privacy, improve patient health outcomes, and cut costs. Limitations include the following protocols disregarded by breachers, and potentially breaking through the "firewall" of defense. This issue is always going to remain prevalent, so it is imperative that continuous funding is put into services/programs.

Title: Adverse Childhood Experiences Related to Domestic Violence: a Public Health Crisis

Name: Amanda C. Perez

Purpose: To educate on the effects household domestic violence has on children actively participating in or witnessing the violence and to discuss the efficacy of interventions that have been in place through time.

Significance: The CDC and Kaiser-Permanente's Adverse Childhood Experience study for the first time found that there was a strong relationship between exposure to childhood abuse or household dysfunction during childhood and risk factors for many of the leading causes of death in adults (Felitti et.al., 1998). When children are exposed to chronic stressful events their neurodevelopment is affected (SAMHSA 2018). Over time they lose the ability to cope with stress and negative events in a healthy manner. As a result negative habits can form such as self-harm and substance abuse. In New Jersey alone there were almost 60,000 domestic violence offenses reported by the police in the 2019 Domestic Violence Offense Report. In 25% of these cases children were actively involved or present. Many of the public health issues faced today including alcohol and substance abuse, domestic violence, and even mental health issues can stem from these intergenerational cycles of abuse. Educating on this topic, and critiquing current practice intervention strategies will allow for understanding and reducing the obstacles faced in protecting children from child abuse.

Method/Approach: Reviewing previous and current methods and strategies for prevention of child abuse and maltreatment. Reviewing previous and current methods for intervention of intimate partner violence including children. Provided reasoning for the methodology and possible reasons for success or failure. Providing strengths and weaknesses for both prevention and intervention strategies and programs.

Outcomes/Results: In the majority of cases surrounding potential child abuse, neglect, and maltreatment, social workers are the first point of intervention. Social workers face many obstacles in their own person, and discipline which may prevent them from giving the child the best outcome possible. There is much more research and development in the area of prevention compared to the intervention on behalf of an abused child. Prevention of child abuse targets educating and training parents who may be at 'risk' for abusive or neglectful behavior. These risks include first time parents, single parents, low-income, low community support and assistance, living in areas of high poverty and crime, etc.

Evaluation/Conclusion: Research has shown great success in the area of prevention of child abuse through programs targeted at early parent education and training. On the other hand there are more complex issues in targeting older children already living in an abusive home. Future research efforts should be focused on improving social worker conditions, and collecting data on long term effects of social work visits in the home. It is also important to take note that many of the adverse childhood experiences that are faced, stem from areas of poverty and crime. Urban communities specifically face surmounting barriers which inhibit them from providing community based strength, bonds, and services Therefore it is crucial these issues be addressed comprehensively, and not treated as isolated problems.

Title: Improving Mental Health Outcomes Through Modern Spiritual Practices

Name: Vivian Phan

Purpose: To educate the public on clinical research behind the validity of implementing modern spiritual/mindfulness practices into healthcare practice, while also discussing the implications derived from cultural practices as well as consider how the public can integrate methods to improve their quality of life respectfully.

Significance: In recent years, the rate of mental disorders and illnesses, such major depression and anxiety disorders, affects over 15 million individuals in the United States. An article written by Abraham Verghese indicated that psychiatric patients participating in religious and spiritual interventions were more protected from risk and vulnerability to depressive symptoms. This evidence of integrating mindfulness practices indicates that there is a correlation between this behavior with more positive health outcomes. The relationship between psychiatric and spiritual dimensions is highly misunderstood, as there is a discrepancy between modern medicine and belief systems in this particular field. Patients also presenting for other ailments with depressive symptoms could also benefit with the addition of these practices. The idea of integrating spirituality with psychiatric practice may also raise concerns and resentment, especially for individuals traumatized by early religious influences.

Method/Approach: One particular study, the Oncologist Assisted Spiritual Intervention Study (OASIS), examined 118 consecutive outpatients with cancer. These patients were seen by four different providers and were either assigned to having a spiritual history intervention or control group. A survey assessing the patient's quality of life was given at the start of intervention as well as three weeks of after. Koenig explains that 76 percent of patients indicated that this intervention was useful and showed significantly less depressive symptoms compared to the control group. In another study, spiritual assessment was observed for outpatients with schizophrenia. In this particular study, eight psychiatrists were authorized to give an assessment, and it was shown that patients that received this assessment were more agreeable in following-up with further clinical appointments. In a separate study, Shapero et al. discuss how mindfulness-based interventions (MBIs), along with certain other types of psychotherapies that include a spiritual component, have shown a reduction in emotional reactivity, improved mindfulness and self-awareness, and decreases in likelihood of relapse.

Outcomes/Results: Several of these studies conducted have all shown more positive outcomes due to the implementation of spirituality and mindfulness techniques. With self-reports as well as observation from medical providers, it was shown that when a patient's spiritual needs were accounted for, they felt more obligated to continue with treatments. Other studies also showed through investigation of 78 neuroimages that meditation, in particular, has contributed to several positive outcomes as well.

Evaluation/Conclusion: The topic of religion and spirituality is somewhat controversial in medical practice; however, for those who have partaken in mindfulness-based practices undeniably have more positive health outcomes, as it aids in their sense of self and helps to promote a better lifestyle for individuals that have found comfort in these practices. These methods could be a viable solution to those who are more interested in integrating behaviors that promote self-awareness, forgiveness, and purpose in one's life.

Title: Implicit Racial Bias and The Inevitable Unconscious Racism of Healthcare: The Correlation

Between Race and Mistreatment of Black Women in Healthcare

Name: Mildred Sarpong

Purpose: The purpose is to conduct a literature review that demonstrates the correlation between race and mistreatment towards Black women in healthcare by highlighting prenatal statistics and stereotypical idea and showcasing the unconsciousness of racism in healthcare providers

Significance: This meticulously researched capstone has a substantial statistical understanding of the pregnancy mortality rates within Black women and the mistreatment of Black women in the healthcare system. The American healthcare system does not cater to African American women on a grand nor personal level and it is evident in the statistics shown in regards to pregnancy mortality rates. The significance is to gain further understanding of the mistreatment of Black women in healthcare and why examine healthcare treatment of white women in comparison to Black women and understand implicit racial bias and its effects on the healthcare system.

Method/Approach: The method used to conduct this research was literature comparisons. Several texts were read and analyzed in relation to healthcare mistreatment, pregnancy mortality rates in Black women, overt and unconscious racism in healthcare, and the psychology of implicit racial bias. After these texts were read, findings were summarized and then the correlation between race and mistreatment towards Black women in healthcare was analyzed

Outcomes/Results: Outcomes/Results included 1) Prevalence rates for illnesses (preeclampsia, eclampsia, abruptio placentae, placenta previa, and postpartum hemorrhage) in black women did not differ that much in white women, black women with these conditions were "2-3 times more likely to die from it than white women,"
2) "For the past 5 decades, Black women have consistently experienced an almost 4-times greater risk of death from pregnancy complications than have White women, 3) Patients' experiences are dependent on "1) communication and relationships with health service professionals, 2) satisfaction with health services and perceived quality of care, 3) trust in healthcare systems and professionals and 4) a mix of different health service utilization outcomes," and 4) Healthcare providers are among the many contributions to the racial disparity gap because of their implicit thoughts, feelings, and attitudes which are assumed to be hard to control because they are not within conscious awareness

Evaluation/Conclusion: Between these several authors and the various theories, it is evident that racism will always be a vital underlying factor and guide to societal measures and societal oppression, thus contributing to the racial disparity gap. The correlation between race and mistreatment continues to prevail because of how deeply rooted our society today is in racism and how society has been molded to benefit the "superior race." It is concluded that implicit racial bias is the driving force behind the correlation between race and mistreatment in healthcare and the solution to this problem is complex because of the oppressor's unconsciousness to the matter making psychological barrier/issue)

Title: Health disparities and the effects on Covid 19

Name: Kristina Siu

Purpose: to show how health disparities affected people of color during covid 19

Significance: Health disparities are preventable burdens of disease, injuries, and unfair obstacles to achieve better health outcomes. Socially disadvantaged populations experience these problems the most. According to the CDC in 2007, Black men and women aged 45-74 have higher coronary heart disease death rates than other races. The prevalence of obesity is highest in African Americans and Mexican Americans. According to the World Health Organization, it has led to income and job losses among the vulnerable minority and ethnic groups. Due to their prevalent health inequalities affecting these populations, the Covid-19 has dramatically affected them compared to the more advantaged communities within the countries. The Black American people are the most affected, as discovered in this study. Research will be done on these issues and a proposal of solutions would be given.

Method/Approach: This study will be conducting research on the topic of health disparities and how it affected the Covid-19 pandemic. The research will look at data that plays a part in health disparities and what groups are most affected by the barriers. Research will be done on the existing strategies that addressed this issue and adjust it to Covid-19. Also an examination on which groups are affected the most by Covid-19. Data on Covid-19 cumulate understanding on which groups need resources and help that would address the prevalence of Covid-19 in their groups. This paper used peer-reviewed journals and other government reports to gather statistical data and evidence. In the end, possible solutions that can address the health disparities would be given. Solutions will be based on data that have seen to have worked before and implement new strategies.

Outcomes/Results: The study found out that Covid-19 is not experienced equally among the US populations. From research, health disparities among the disadvantaged minority populations have escalated the effects of Covid-19 among them. Poor health, living, and working conditions are among the major socio-economic factors that have led to health inequalities. The health inequalities have increased the Covid-19 morbidity and mortality rates among the Black Americans compared to Whites' effect. People who live in poorer housing or shared housing are subjected to inadequate conditions that increases their chances of poor health and more likely to be affected by COVID-19. The government should introduce rules for standardized housing and ensure that all the housing requirements are adhered to strictly. The government should also provide more financial assistance to help those in need and to reduce significant stress caused by financial instability. The community can also take upon different responsibilities to ensure there are no health disparities between other groups. Personal efforts should also be made to play a vital role in reducing health disparities. People need to make sure they are eating well and find an adequate shelter that provides them with their needs. There are many solutions discussed in the research.

Evaluation/Conclusion: The pandemic has accentuated the infamous racial inequalities, which have disproportionately disadvantaged the low-income earners. The local governments of the day should come up with lasting policies to adequately address the key issue of race. The success of this project can be measured by greater health outcomes for those that were disadvantaged before. Comparison of the groups that received intervention with the groups that did not can measure if the change was beneficial. Data can be collected to see if the groups receiving intervention had better health outcomes or improved health outcomes compared to the ones that did not receive intervention. Studies can be conducted using these strategies to see if they work and provide some sort of improvement. Data should be collected after using these strategies and should be recorded to see if this research is a success.

Title: Racial Bias in the American Healthcare System

Name: Ashley Stinfil

Purpose: To research the effects of racial bias in the medical field when it comes to women of color, in particular Black Women

Significance: According to NJ.com, New Jersey's maternal mortality rate is double the national average. New Jersey has the highest maternal mortality rate of 37.3 for every 100,000 births. Those numbers disproportionately affect minority communities. Various research evidence has shown that communities of color more than often have worse health outcomes compared to their white counterparts. While New Jersey's infant mortality rate is relatively low, it's maternal death rate is amongst the highest in the nation. This project will delve into depth as to why certain racial populations have worse health outcomes as compared to their White counterparts. This project attempts to bring about awareness to the issue as well as provide a few solutions to the problem.

Method/Approach: Many peer reviewed studies were reviewed that detail the disparities that Black women, and other women of color, face when it comes to access and quality of healthcare. The research will be focused on women of all ages but more specifically women of child bearing years.

Outcomes/Results: Across economic statuses, ethnic minorities, especially women, were seen to have worse health outcomes as compared to their White Counterparts. The percentage of negative health outcomes in minority patients increased as the patients socio- economic status worsened.

Evaluation/Conclusion: The negative health outcomes that are seen in minority populations in America are a reflection of the racial biases that are seen in America as a whole. To help reduce these outcomes, many health facilities have been implementing diversity training, as well as implicit bias tests for their staff to be able to identify the biases that they have and begin to work on them. Research has shown that understanding the biases that we have and knowing why they are wrong is very important in being able to tackle and challenge those biases.

Title: Difference in Quality of Care Between US States

Name: Johnny Vu

Purpose: To uncover the reasons behind the variation in quality of care across US states and highlighting the effective and ineffective programs/laws implemented across the country

Significance: Quality of care throughout the US varies greatly from state to state. States such as Kentucky and Alabama regularly rank towards the lowest for healthcare and quality of care while states such as Massachusetts and Rhode Island consistently rank at the top year after year. By analyzing the different approaches these states use to increase access to care and improve quality of care, we can provide possible solutions on how these states can improve their healthcare system. The Healthline lists aggressive anti-drug programs, high child immunizations, and more mental healthcare providers as some primary reasons why Massachusetts is so successful at keeping their people healthy.

Method/Approach: Used public data from the CDC and state government websites to analyze effective and ineffective healthcare policies across different states. I will primarily be using data from the most successful healthcare states and the least successful healthcare states. We know that Massachusetts has implemented many successful policies that have made their state one of the healthiest states to live in. High vaccination rates, low obesity rates, and a low percentage of uninsured residents makes it easy to understand why this state consistently ranks as one of the healthiest states. Meanwhile, Kentucky has implemented a lot of deregulation when it comes to healthcare, letting the free market and the people make their own decisions. However, this has led to them being one of the worst states to live in when it comes to healthcare and access to care.

Outcomes/Results: Successful policies and programs implemented by states include improving price transparency, expanding Medicaid, ombudsman programs, and performance-based auto-assignment programs. States such as Massachusetts have passed price transparency laws, expanded their Medicaid plans, and use ombudsman programs. This has resulted in them having one of the lowest uninsured rates in the country and being one of the best states for healthcare outcomes. Price transparency increases competition by forcing providers to lower prices to attract consumers. Massachusetts has a website with information on prices and quality of different services from different providers. The added information on quality helps consumers pick the best providers for them while forcing providers to improve their care quality to attract and keep consumers. Other states wishing to improve their quality of care should look at the programs and policies implemented by Massachusetts.

Evaluation/Conclusion: States that have not already passed price transparency laws and have previously opted out of expanding their Medicaid programs need to reconsider their actions. Alabama and Kentucky have uninsured rates above 10%, doubling some states that have expanded their Medicaid programs. Providing price and quality information to consumers will also improve the quality of care in their states, directly forcing providers to have more competitive prices and better care quality.

Fieldwork Internships

Title: Per Diem Care Coordinator

Name: Andres Callegari

Preceptors: Meaghan Lane, Assistant Manager, Outpatient Operations

Agency: Memorial Sloan Kettering Cancer Center - New York, New York

Work Duties My role as a Per Diem Care Coordinator is to provide patients and visitors with a warm welcome when they arrive to the Rockefeller Outpatient Pavilion. As a member of the MSK team, I am expected to treat patients with the utmost respect while acting as the liaison between them, their families, and the medical team. My duties also include assisting patients in getting to their appointments, screening them and their visitors for COVID-19, and meeting their care needs.

Techniques: During my time working as a Care Coordinator, I've noticed that I see hundreds of patients each day which can be somewhat stressful at times. The important thing for me is to remain calm especially when a high number of patients come in at once and to be efficient when checking them in. I also learned that I am able to assist multiple patients at a time which helps reduce waiting in line and assures patients that they are being helped right away. Another technique I use is asking questions whenever I'm not sure about something. I don't hesitate to ask managers, other Care Coordinators, or the Concierge desk for assistance because we're all part of the same team working together.

People Skills: Since I work in the lobby and I am often the first person a patient sees when they enter the Rockefeller Outpatient Pavilion, I try to be as charismatic and welcoming as possible in greeting them. Throughout this internship, I have realized that communication is extremely important at MSK especially between Care Coordinators, departments, and patients. Lastly, I have learned to be more compassionate with patients and being receptive to their needs.

Results: My experience at MSK so far has helped me to grow as a person, teammate, and employee. I have been able to witness firsthand how hospitality affects the overall patient experience and I am proud to be able to make a difference in someone's life. Overcoming the challenges I've faced during my internship has also given me the confidence to deal with new situations. Lastly, the positive feedback I've received from my supervisor and coworkers has helped me to grow more into my role as a Care Coordinator.

Lessons Learned: The lessons I've learned at MSK are unmatched by the ones I've learned in the past in both schools and at previous companies. During training, we were taught about MSK's six All Care Together principles which meet patient standards and elevate their experience. These six principles (Coordinate the Journey, Foster Warmth, Keep it Simple, Meet Individual Needs, Minimize Uncertainty, and Restore Control) are ideas I use to guide my approach at work every day. MSK provides patients with personalized care that has taught me how to be a more empathetic and compassionate person. This internship has also helped me develop a greater trust in my problem-solving skills and my ability to multi-task.

Name: Emmanuel Cordoba

Position: Care Coordinator I

Preceptors: Jenny Yuen, Assistant Manager, Outpatient Operations

Agency: Memorial Sloan Kettering

Work Duties: As Care Coordinators at MSK in the vaccine clinic, it is our duty to ensure each patient is checked in for their COVID-19 vaccine and is scheduled again for their second dose if need be. We must provide the patient with information regarding the New York State Vaccine form which they need to have handy when they come in for their visit. If the patient does not have this form, we then assist the patient in completing it.

Techniques: MSK prepares all of its employees very well in terms of the patient experience. We are trained to maintain the same kind of service throughout all of the departments and buildings. At MSK we have to perform what is called a "Warm Welcome" in which we greet the patient when they first walk in. We perform patient identification by asking their "Last Name" and "Date of Birth". We then have the ability to check in the patient for their scheduled vaccine or COVID-19 test. After the patient is checked in we direct them to sit by a "pod" where another Care Coordinator will present them their wristbands with their medical record information. Once the patient is done with their vaccine they are brought out into their observation area where they will be observed for 15 to 30 minutes depending on the patient's medical history. The patient then has the liberty of scheduling their following dose with us. The patient is finally complete which is called our "Send Off".

People Skills: There definitely goes a lot into patient experiences. Our duty here at MSK is to minimize the amount of uncertainty and make the patient's visit as smooth as possible. COVID-19 is a new issue we have to continuously be aware of. As Care Coordinators we have to do our best on relaying information to the patient correctly and clearly. We understand that these times are difficult for everyone. At MSK we receive constant updates about eligibility for vaccines as well as updates from the CDC on COVID-19 protocol. It is our job to relay all the information we know to our patients to minimize any anxieties these times bring. Listening to our patients is key and making sure they have exhausted all their questions and resources while they are here.

Results: During these last 3 months MSK has developed a well-managed system for patient vaccination as well as scheduling. All the way from the Care Coordinator to the Nurses in charge there is no misstep in operations. Every piece matters when it comes to the vaccine clinic here at MSK. MSK has developed a system where anyone can be put in any position and is still able to get the task done at hand. Memorial Sloan Kettering has had the ability to be able to vaccinate thousands of patients and staff members within the last half-year successfully.

Lesson Learned: A big takeaway from this internship is that everyone is different. Every patient and experience will not be like the last. As a Care Coordinator, you have to be able to be ready for any kind of question. Knowing who your contacts are is very important since there is always constant communication among other departments. There will be times when you do not feel like you have the answer for a certain problem, but little do you know that you are one phone call or email away from the person with the information you need to solve your problem. MSK is a very good team-oriented environment.