

2019 Ambrose Scholars Community Projects



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Access to Health Services

Erin Dominici

Discipline: Public Health

Institution: Northwestern University

Project Title: Developing a community asset mapping tool to address access to mental health services in Chicago's South and West side communities

Summary and Goals: I developed a community asset mapping tool PRCC and supporting database to connect patients and community members to mental health and other community health resources. PRCC is a community-based, grass roots organization that provides linguistically and culturally appropriate HIV prevention and mental health services to minority groups, with a focus on LGBTQ, Latino, and low-SES populations on Chicago's West and South side communities. The community asset mapping tool helps patients find culturally appropriate, affordable, and local mental health services by allowing users to filter information based on community area, language, services offered, and payment options. These filters return relevant service options and information displayed on a map. For example, patients can filter service options to find free and LGBTQ-friendly behavioral health services within their zip code. The app was built using RShiny and hosted on a free server, so it is of no cost to PRCC to maintain or access.

Project Highlights: I was really impressed by the work of student volunteers who helped lay the foundation for this work - conducting a needs assessment for mental health services in Humboldt Park, and helping in the development of the app. Link to tool: <https://edominici.shinyapps.io/prcc-map/>

Number of project volunteers: 1-5

Number of people served by project: 25-50

Number of people impacted by project: 50

Kiarash Rahmanian

Discipline: Physician Assistant

Institution: Duke University

Project Title: Perceptions of the LGBTQIA+ and Cisgender Community on the Approach to Asking SOGI and Sexual Risk Behavior Questions

Summary and Goals: The LGBTQIA+ community experiences numerous health disparities in comparison to the cisgender heterosexual population. Sexual and gender minorities are more likely to be uninsured, to have mental health disorders, and to use tobacco, alcohol, and other substances. The multiple communities within the LGBTQIA+ umbrella have differing health experiences and outcomes.

Recently, Duke University Health System incorporated the collection of Sexual Orientation and Gender Identity (SOGI) data into their electronic medical records (EMRs). The Gender and Sex form is currently available as an optional questionnaire in patients' MyCharts and as a form clinicians, nurses and students can fill out during an encounter. Patients (LGBTQIA+ and straight cisgender) are largely accepting of the collection of SOGI data (12, 13).

The perceptions of the LGBTQIA+ and the heterosexual cisgender community of their appropriateness, effectiveness, and utility for clinical-decision making have not yet been assessed at Duke University or other healthcare systems across the nation. As such, there is a need to assess whether this information is being collected in an appropriate manner and how it can be used to guide clinical practice and care for members of all sexual orientations and gender identities. In addition, this study would guide whether current data collection methods effectively assist in more appropriate and effective dissemination of STI testing, contraceptive use, and sexual practice education to patients in the future.

The purpose of this study is to gather perceptions and input on how questions about sexual orientation, gender identity, and sexual risk behavior are included as a routine part of medical visits at the Duke Family Medicine and Community Health clinic as well as how implementation of these questions could affect clinical decision-making.

Project Highlights: The project successes have largely stemmed from the relationships already built upon by Dr. Covas (Family Medicine MD). Dr. Covas had established relationships with members of the LGBTQIA+ community prior to this study. She had started the foundation for a community advisory board, but this project brought this to fruition. We have now worked closely with the CAB and will utilize their expertise and knowledge on any future research or healthcare endeavors with members of the LGBTQIA+ community. Additionally, we were awarded two separate institutional grants (one from the Department of Family Medicine and Community Health, and the other from the Clinical and Translational Sciences Institute or CTSI). These two grants both funded part 2 of my study and will be funding future testing of a validated SOGI & sexual behavior tool.

Number of project volunteers: 5-10

Number of people served by project: 500

Number of people impacted by project: 1,000

Clinical Preventive Service

Julia Allen

Discipline: Medicine (DO)

Institution: VCOM Auburn

Project Title: Increasing HPV vaccination rates among High school students

Summary and Goals: Human papilloma virus is known for causing most of cervical cancer cases in women. In addition, this virus causes other less common forms of genitourinary cancers. Since the introduction of the HPV vaccine, rates of cervical cancer have dropped 70%. However, in order for this vaccine to be most effective, it must be administered early and is a multi-shot series that must be completed to confer complete immunity. Vaccination must occur early in a patient's life, ideally before they are sexually active, in order to prevent the initial infection and drop cancer rates. This vaccine does not eliminate the need for regular screening and only protects against one form of sexually transmitted disease. The use of other forms of protection is still highly recommended during intercourse.

The purpose of this project is to address the vaccination rates against HPV among Alabama teens. The Healthy People 2020 objectives seek to raise the rate across the county to 80%. Alabama, as a whole, has a vaccination rate of 49%, but Lee county has a vaccination rate of only 25%, as of August 2019. In order to address the low

vaccination rate, I would like to talk to high school students about the importance of getting vaccinated and answer some of their questions about the importance of getting vaccinated now. By talking with these students in person and giving them the resources to take to their doctor, the hope is that they will take their own initiative in the effort to reduce rates of cervical, anal, penile and vulvar cancers and increase vaccination rates in this group of people. The expected benefit of this study is to encourage students to ask their doctors about getting the HPV vaccine and finish the 3 shot series to provide full immunization to this virus.

Project Highlights: I certainly enjoyed the learning process of actually implementing a project and coming up with ideas for how to keep the crowd engaged.

Number of project volunteers: 1-5

Number of people served by project: 75-100

Number of people impacted by project: 50

Alysa Angel

Discipline: Nursing

Institution: University of South Alabama

Project Title: Promoting breast and cervical health awareness in low income women

Summary and Goals: Access to healthcare for disease prevention and health promotion services is important to reduce health care disparities among women. Breast cancer is the most common cancer in women. Treatment is most successful when detected early. Cervical cancer is caused by the HPV virus. Women who get Pap smears decrease their risk of cervical cancer when abnormal cells are detected early. Women should be educated on signs and symptoms as well as modifiable risk factors of breast and cervical cancer. Women between the ages of 21-64 years old who are low income, uninsured or underinsured have limited resources. This community-based project summary addresses how a local health center is able to offer breast and cervical cancer screening at no cost.

Project Highlights: The women were grateful to receive services and happy to have a woman healthcare provider. Some women had not seen a healthcare provider in over 10-20 years. Some had never had a mammogram before.

Number of project volunteers: 5-10

Number of people served by project: 75-100

Number of people impacted by project: 75-100

Rachel Dennis

Discipline: Medicine (DO)

Institution: Arizona College of Osteopathic Medicine

Project Title: Increasing Vaccination Rates among Pediatric Providers

Summary and Goals: This study was focused on comparing the most beneficial vaccination policies amongst Pediatric providers including but not limited to Pediatricians, Family Practice Providers, Nurse Practitioners in Pediatrics and Family Medicine and Physician's Assistants in the fields of Pediatrics and Family Medicine. The aim of this study was to prioritize the importance of techniques for increasing vaccination rates as surveyed by Pediatricians among patients that have reportedly been delayed or anti-vaccination in the past. Providers will

provide their most successful vaccination strategies in a survey format and identify resources lacking to increase vaccination strategies. These strategies will also include an investigation into the newer usage of social media formats for spreading scientific data regarding vaccines. Furthermore, this information was to then be applied to past relations utilizing the Military Electronic Medical Records to identify successful use of said strategies in military families as well as identifying the rates of anti-vaccination and delayed vaccination rates among military families.

Project Highlights: Mentors - they are everywhere! There are so many people willing to offer ideas, how to distribute, how to find better information and resources and how to better your project. As well, if you ever need help with anything regarding resource, I learned to ask a librarian. They can help you with a search in less than an hour and get you the exact resources you need.

Number of project volunteers: 20+
Number of people served by project: 100+
Number of people impacted by project: 500

Shelby Holstein

Discipline: Pharmacy

Institution: University of Maryland Eastern Shore School of Pharmacy and Health Professions

Project Title: Sunscreen Use and Awareness in Prevention of Skin Cancer

Summary and Goals: This project involved gathering educational materials for this campaign, which first began with including free educational materials provided by the American Academy of Dermatology Association's Sunscreen Resource Center. Materials in Spanish language were also gathered. A total of four skin care screenings were set up for 2020 beginning in March, but all four have been canceled due to COVID-19. Some barriers have made it difficult in executing this program in the time-frame initially scheduled for. COVID-19 has played a big role in this barrier, but outside of that, there has been a delay in generating materials to provide participants with the intention of getting feedback. The project plan was to offer free skin-care screening in partnership with Peninsula Regional Medical Center with their mobile clinic, and during Ocean Pines Health Fair. Prior to skin screening, participants would complete a survey on sunscreen and skin cancer awareness as a baseline, and then followed by a 30 minute 1 hour educational session on skin care prevention and many different aspects to sunscreen, including application, SPF, how often to apply, medications that can increase skin sensitivity from the sun, to name a few. After this 1-hour session, participants would take another survey to gauge how much they learned from the session. They would then have their screening and would be followed up with in 3 months and 6 months. These follow-up timelines would occur over the summer, which is intentional, and participants who followed-up would be provided with free sunscreen samples. An online survey was conducted and distributed and is still collecting data. We are planning to implement physical screenings as soon as we can, but we feel the best time is during March 2021 to begin this implementation, which leaves even more time to gather more materials.

Project Highlights: The online survey is yielding some results. I intend to follow-up with my results in the near future. This has been a great experience that I am honored to have been a part of and I want to finish strong, and I know anything is possible.

Number of project volunteers: 10-20
Number of people served by project: 100+
Number of people impacted by project: 200

Tangela Peavy

Discipline: Nursing

Institution: Cleveland State University

Project Title: The Design and Rationale for a Research Study on the Knowledge Level of African Americans and Hypertension

Summary and Goals: Hypertension is a relentless health condition that has been prevalent in the Black community plaguing society for many years. However, health professionals have continued to search for ways to address this overwhelming health concern. My interest in this topic will be to ascertain general information on the level of knowledge in the Black community regarding the following: 1.) presence of a diagnosis of hypertension, 2.) ability to state one's own actual blood pressure and when last taken, 3.) names of medication and side effects, 4.) state health behaviors and acknowledge one's own participation in these actions and 5.) primary need in promoting awareness and personal self-care regarding this disease. The objective of this study was to understand the level of knowledge of African Americans with regard to a diagnosis of hypertension, understanding of medications, and healthy lifestyle behaviors. This population still needs encouragement and direction in this health concern in order to address and minimize health disparities for this group. The materials that I used for this project were a survey and cell phone. I contacted people via phone (one person so far in person). We discussed hypertension in general. After receiving their consent, I proceeded with the questions from the survey

Project Highlights: I learned that measures should be directed toward providing more opportunities for individuals to evaluate their own background as it pertains to hypertension.

Number of project volunteers: 1-5

Number of people served by project: 1-25

Number of people impacted by project: 5

Connie Zhong

Discipline: Medicine (MD)

Institution: Harvard Medical School

Project Title: Theory-based community outreach curriculum improves skincare and foot care self-efficacy in Chinese-American older adults.

Summary and Goals: In Chinese-American elderly, skin cancers are often diagnosed at advanced stages, and high prevalence of foot problems greatly affects quality of life. This study sought to improve understanding of skincare perceptions and behaviors of Chinese-American elderly, and to increase their knowledge and self-efficacy through a skincare curriculum. The curriculum was developed according to the Health Belief Model. Two 90-minute sessions covering skin cancer and foot-care were delivered across three locations in Boston. Pre- and post-session surveys, based on the validated Skin Self-Examination Attitude Scale and Foot Care Confidence Scale, were administered. Individuals were included if they were older than 60 years of age, attended the full session, and returned both pre and post surveys. 120 participants met inclusion criteria. Median age was 76, and 75% of participants were female. 32.3% were concerned about a skin growth, yet only 18.8% knew what

features were concerning for skin cancer. 52.9% were concerned about a foot problem, but only 41.2% knew how to check for foot injuries. After the curriculum, features of skin cancer knowledge increased significantly (18.8% to 46.8%; $p < 0.001$), as did knowledge of how to check feet for injuries (41.1% to 75.6%; $p < 0.001$). Self-efficacy for self-skin exams and foot-care significantly increased (both $p < 0.001$). Our findings suggest that Chinese-American elderly have significant knowledge gaps in skin cancer surveillance and foot-care. Our targeted educational sessions increased participants' knowledge and self-efficacy, consistent with prior studies. Dermatologists should consider implementing interventions in diverse populations to promote skin health.

Project Highlights: I found this project to be extremely meaningful. I was able to connect with many of the elderly and they approached me to ask about certain skin lesions at the end of each session. I felt particularly empowered when I was able to give an elderly lady some thick cream to moisturize her dry skin after she told me she did not have any lotion at home.

Number of project volunteers: 5-10

Number of people served by project: 100+

Number of people impacted by project: 120

Injury and Violence

Johnelle Chock

Discipline: Nursing

Institution: University of Hawaii at Manoa

Project Title: Development of a Community Based Fall Risk Assessment and Public Health Nursing Fall Prevention Education for Hawaii Seniors

Summary and Goals: Nationally, one in four seniors fall annually. The fear of falling (FoF) is defined as low perceived self-efficacy to avoid falls while completing activities of daily living. The Iconographical Falls Efficacy Scale (Icon-FES) measures a senior's FoF and uses visual aids for context and facial expressions to assist seniors with scoring their concern. The purpose of this study was to develop and pilot a community-based fall risk assessment for seniors in Hawaii and provide prevention education and interventions by Public Health Nurses (PHN). There were 19 community dwelling seniors that participated in this program. The first day, seniors were assessed using the Icon-FES, the Falls Efficacy Scale International (FES-I), the Timed Up and Go Test (TUG), and the Mini-Cog. Demographics, fall history, and fall risk factors were collected. One week later, fall history and the Icon-FES were assessed and seniors were educated on their personal risk factors. Collected data was entered into Microsoft Excel for analysis. The average age of the seniors was 76.16 years. There were 13 females and 6 males of Asian, Native Hawaiian, or Caucasian ethnicity. Thirteen seniors lived alone, 8 felt unsteady when standing or walking, and 16 were worried about falling. Common fall risk factors were concerns with seeing (7), incontinence (6), pain (5), mobility (4), and environment (3). Three seniors fell in the past year. The most common medical diagnoses were hypertension, hyperlipidemia, and diabetes. The average amount of medication taken each day was 4.47. The average score of the FES-I was 26, Icon-FES was 17.73, TUG was 12.04 seconds, and the second Icon-FES was 17.31. This pilot was successful to train PHNs to identify the fall risk of seniors and provide fall prevention education. The assessment showed that seniors in the community do experience FoF and have various risk factors for falls.

Project Highlights: Through this project I was able to help train Hawaii Department of Health Public Health Nurses to do a community-based fall risk assessment for groups of community seniors. The seniors seemed to

be very interested in fall prevention and valued the one on one time with the nurses to get consultation about fall prevention interventions that they could implement in their homes and in their lives.

Number of project volunteers: 5-10

Number of people served by project: 1-25

Number of people impacted by project: 50

Sowmya Ravi

Discipline: Public Health

Institution: Case Western Reserve University

Project Title: Virtual Advocate: Giving A Voice to the Unheard

Summary and Goals: The purpose of this project is to assess the social, commercial, and technical viability of the Internet of Things (IoT) based Virtual Advocate project. This innovation leverages voice- activated commercial off-the-shelf (COTS) technology to protect people at risk of domestic or dating violence and sexual harassment through use of a predetermined safe-word or phrase from a person in peril. Upon voice-activation the Virtual Advocate would execute a predetermined sequence of protective events. The Virtual Advocate has enormous potential to prevent harm, to provide protection if harm is initiated, and to provide evidence of the event, thereby mitigating the issue of she said/he said hearsay prominent in sexual violence or harassment. While these features hold substantial benefit over existing personal safety apps, the technical, legal, ethical, and law enforcement obstacles require attention.

Project Highlights: This program was the pinnacle of my passion for public health. After being selected as a Paul Ambrose Scholar, I had the opportunity to present my Alexa project from another perspective. My project was about the use of Alexa as a domestic violence advocate and alarm system. The conference in Cleveland allowed me to connect with both new and current physician mentors. Through the program, I met graduate and medical students from all around the country. We offered feedback on projects and collaborated on problem solving approaches to public health issues today. I developed an appreciation for collaboration and learned that staying open minded will help tremendously in reaching success.

Number of project volunteers: 10-20

Number of people served by project: 75-100

Number of people impacted by project: 150

Maternal, Infant, and Child Health

Curisa Tucker

Discipline: Nursing

Institution: University of South Carolina

Project Title: Community Baby Shower

Summary and Goals: Healthy People 2020 has identified preterm birth and infant death as a leading health indicator. South Carolina is among the top 15 states with the highest rate of maternal mortality, infant mortality, and preterm birth, and African American women are at greatest risk. Community baby showers have

been used as a public health strategy to educate and to support at risk mothers.

Purpose: To describe a plan to implement a community baby shower that will: 1) educate expectant or new African American mothers about their unbalanced risk for infant mortality and preterm birth; and 2) share additional healthy baby resources and information (e.g., safe sleep). This project originated through participation in the Paul Ambrose Scholars Program.

Methods: The 3-hour shower will be held at a local community center May 2020 in Columbia, SC. Twenty participants will be recruited via social media, flyers posted in the community and word of mouth. Shower activities will include brief educational presentations, games, prizes, food and gifts for each mom. Funding support will be raised through a university-sponsored, online crowdfunding platform. Pre- and post-shower questionnaires will assess participant knowledge and perceptions of preterm birth, infant mortality and willingness to share learned knowledge with others in the community. Participant satisfaction with the shower will also be evaluated.

Preliminary Results: To date, we have 2 confirmed volunteers who are members of a local chapter of the National Black Nurses Association, and an interdisciplinary group of 3 student volunteers. Two non-profit organizations have also agreed to support the event: a local diaper bank and First Candle, an organization committed safe sleep education.

Potential Implications: Implementation of this project will demonstrate the feasibility of a community-based education program and disseminate knowledge to at risk mothers and infants and potentially prevent adverse maternal and infant outcomes.

Project Highlights: The biggest successes were building relationships with local community stakeholders and organizations who are willing to offer support and help for the shower.

Number of project volunteers: 10-20

Number of people served by project: 1-25

Number of people impacted by project: 50

Mental Health

Lisa Alley

Discipline: Public Health

Institution: NYITCOM/St. Vincent Family Medicine Program

Project Title: Understanding Attitudes and Perceptions of Mental Health in Medicine: A Gateway to Change and Targeted Mental Health Programming

Summary and Goals: There is often a subconscious divide between physical and mental health, however, a growing amount of research supports their evident correlation. Mental illness is such a growing problem that the World Health Organization ranks mental disorders in the top 3 most common fatal and non-fatal health outcomes and disabilities worldwide. It also currently accounts for 13% of the overall global burden of disease and is expected to rise to the second highest burden of disease by 2030. Mental health wellness among high stress professions is also well documented. Physician suicide rate is more than double that of the general

population (300-400 deaths yearly. Moreover, according to recent data from the American Association of College of Osteopathic Medicine (AACOM), 15-30% of medical students screen positive for depressive symptoms while 37.9% of physicians experience emotional exhaustion. Sadly, mental health issues still carry major stigmas and often remain ignored.

The mental well-being of health professionals is such a growing topic among medical schools around the country that in 2018, the Council of Osteopathic Student Government Presidents (COSGP) launched a mental health awareness task force highlighting the ever-growing need for mental health assessments and programming for medical students. In order to further elucidate these concerns, I am preparing a survey to understand variations in mental wellbeing amongst students/residents at different levels of medical training as well as attitudes and perceptions of mental health amongst these individuals. The information gathered in the survey will include demographics (age/sex/race/marital status/socioeconomic status), academic information (desired/matched specialty, hours daily studying, studying type-group, individual, mixed), wellness involvement and lifestyle data (diet, exercise-days per week and types of exercise, meditation/yoga involvement, living arrangements, current wellness programs offered vs. attended) and ascertain how these factors may influence programming development and the mental health of students/residents.

Project Highlights: I think that though COVID-19 was a curveball, it made me sit back and rethink my project. Obviously, assessing mental health of medical students during a COVID-19 pandemic would not be an accurate representation of their mental wellbeing compared to during what would be considered a "normal" academic environment. I plan to collect data over the early summer to get a more accurate data sample.

Number of project volunteers: 1-5

Number of people served by project: 1-25

Number of people impacted by project: >200

Rynita Bohler

Discipline: Medicine (MD)

Institution: Wayne State University

Project Title: Mind Matters: Mental Wellness and the Community

Summary and Goals: Mental health affects all aspect of our lives and determines how we connect with the world around us. As we age, we develop new stressors which also affect our mental health. Senior citizens with mental health conditions such as depression often go unrecognized and untreated. Depression can also lead to suicide, particularly if left untreated. According to the American Psychological Association, older adults have the highest rates of suicide of any age group, and this is particularly pronounced among men. The CDC estimates that in 2011, more than 9,000 older adults died by suicide. Depression and economic insecurity are major risk factors for suicide in elders, and depression remains a misunderstood illness. Therefore, It is critical to discuss common mental health topics like depression, the signs and symptoms and what to do if you or a loved one is experiencing depression. "Mind Matters" is a virtual curriculum designed to educate senior citizens about depression along with a depression symptom checklist to take to medical professionals and resource guide to help seniors find accessible mental health services.

Project Highlights: I received some good feedback on the presentation, and a resource guide that I created for the seniors.

Number of project volunteers: 1-5

Number of people served by project: 1-25

Number of people impacted by project: 100+

Adriane Biggio

Discipline: Nursing

Institution: James Madison University

Project Title: Suicide Prevention through Video Chat Line

Summary and Goals: This public health and prevention project is to develop and maintain a free video chat line managed by public health professionals and/or veterans. The ability to talk through problems with a trained professional helps to build meaningful relationships while providing individuals in need with valuable resources. Based on latest research, one reason for higher rates of suicide on the west coast was “less access” to mental health services. If this project expands, retired healthcare professionals, physicians, and counselors nationwide could be recruited as volunteers. For those who wish to remain anonymous, a phone option or texting function will also be available. The professionals working for the video chat line will facilitate future therapy appointments with a local mental health provider if the participant has health insurance or with another professional working for the video chat line if the individual does not have health insurance. This follow-up is essential to reducing suicide rates. The video chat line could be expanded to include a smartphone compatible application (app), which increases accessibility for users. It also extends the opportunity for services to those who cannot afford a home computer and internet service but have access to a mobile device.

Project Highlights: Everyone I spoke with thought the project idea was a great one and very relevant to the current climate. However, many thought there were many legal implications and other similar platforms within the mental health arena that could be used for suicide prevention support, even though they were not developed solely for suicide prevention.

Number of project volunteers: 20+

Number of people served by project: 500+

Number of people impacted by project: 10,000

Sophia Dhanani

Discipline: Medicine (DO)

Institution: Midwestern University - AZCOM

Project Title: Remember Us Initiative (RUI)

Summary and Goals: Considering the projections of Alzheimer’s Disease (AD) rates within the aging population in Phoenix, this project will interview clinicians about recognition, screening, and living with AD in order to create a targeted educational seminar to help surrounding communities primarily be able to identify the symptoms of Alzheimer’s Disease, and also identify next steps, important resources, and strategies for living with AD. The interventions will be relayed through local churches where research participants will be recruited, after an initial presentation pitched to church leadership. This will engage social institutions with community resources to identify at-risk individuals and to create meaningful programming throughout the life of the Alzheimer’s patient. The intervention will also include quantitative methods of evaluation and will culminate in an educational brochure based on project/research findings for dissemination in clinics. Follow-up with church leadership to gauge retention and longevity will occur 3 months post-intervention.

Project Highlights: Even in just speaking to organizations, I was beginning to worry that with how overstretched church leadership can be in taking care of an entire congregation, that there would be no interest in outside help for the congregation. I do remember a specific instance, where I spoke to some members over the phone in an effort to get in touch with leadership, and the woman spoke to me excited exclaiming, "that's a wonderful idea! and one we could really use, because I take care of my mother right now". To be reminded there was a need and that there is an importance people get more information regarding Alzheimer's Disease was very encouraging.

Number of project volunteers: 1-5

Number of people served by project: 1-25

Number of people impacted by project: TBD

Jinyi (Jane) Duan

Discipline: Public Health

Institution: Tufts University

Project Title: Asian American Mental Health Awareness Group

Summary and Goals: To identify, support, and address mental roadblocks specific to the Asian American population within the Tufts pre-health professional population. Allow members to define their mental health and achieve personal goals in growth.

Project Highlights: Exchanging stories with people who otherwise would not have come together. We had representatives from all different schools and a librarian representative come in as well. We created a book list specifically curated to Asian American/Immigrant heritage. We shared common stories and gave students a place to feel they could relate to (given the lack of Asian American/Immigrant groups on campus).

Number of project volunteers: 1-5

Number of people served by project: 1-25

Number of people impacted by project: 7

Joselyn Miller

Discipline: Medicine (DO)

Institution: Edward Via College of Osteopathic Medicine at Auburn

Project Title: Determining a Brighter Future for Underserved Families

Summary and Goals: The Osteopathic Fundamental of body, mind, and spirit is often undervalued in low socioeconomic communities such as Auburn and Opelika. Suicide and depression were leading contributors to death in 2016 within the state of Alabama. Addressing mental health as a social determinant of health is important to promote self-care and debunk social stigmas. This project focused on incorporating mindfulness techniques in the day to day lives of the kids of the Boys and Girls Club and their families. Providing this needs-based intervention would help to mold children of the boys and girls club into emotionally intelligent adults. To tackle the deficit in programming and provide support that this population desires activities should be aimed to provide calming, stress- relieving tools. Through working with the Boys and Girls Club staff with training seminars, creating mental wellness kits, and hosting mentorship sessions with the youth this project centers around making an invaluable impact against emotional and mental barriers that plague disadvantaged populations. Due to lack of community support, lack of resources available in Auburn and Opelika to adequately

address this concern, and without programming that intervenes on this population, the death toll will continue to rise. To continue the longevity of this project, another series of family-friendly events are necessary with themes that are structured around both mental and physical health, educating on daily living practices, and creating a sense of community.

Project Highlights: In the face of COVID19, morale was low, mental health decline was at an all-time high, and many kids are doing their best given the situation. Unfortunately, kids in this region are even more affected because being out of school and away from the Boys and Girls Club meant that they did not consistently have meals that were provided. They lacked nourishment, they lacked social support, they were quarantined in homes that weren't in the greatest neighborhoods, and were being forced to learn at home in environments that didn't support education all while being hungry or worrying about where the next meal would come from.

I was able to create a "Mental Health and Wellness Kit" that would plant the seed in the minds of these kids that they are special and even in the face of the pandemic, they are still being thought about and cared for. I knew they could not leave the house due to quarantine, so I wanted to give them the tools needed for them to set up their own safe space in their homes. I received feedback from the director of the Boys and Girls Club that she was blown away by these kits and that the kids had loved them. She said even her own daughter who attends the Boys and Girls Club felt loved, inspired, and motivated to achieve all her dreams. During the mental wellness training that I did for the staffers, I had multiple people cry during the session and state that they have never attended any event like that in the past. We had multiple people talk about heavy topics that plagued and blocked their mental wellness and they committed to some of the mindfulness practices that we put into motion.

Number of project volunteers: 1-5

Number of people served by project: 100+

Number of people impacted by project: 150

Catherine Popik

Discipline: Physician Assistant

Institution: Case Western Reserve University School of Medicine

Project Title: Project HOPE

Summary and Goals: Project HOPE is a 4-part program, each day focusing on a different aspect of mental health and wellness. Each day of the program is themed to spell H-O-P-E. The first day we will tackle H – Help. This session focuses on connection with peers and includes activities centered around how to help others and how to ask for help. The second day focuses on O – Openness. For this session, students will be given resources and tools on how to openly communicate with others and express themselves. These tools include expression through art, journaling, and music. This includes learning how to recognize and vocalize gratitude, joy, fears, and frustrations. P- Purpose is the theme of the third session. It gives the students the time and space to think about the type of person they want to be, how to tell their own story, and set goals for their future. The fourth and final session is all about creating an environment. Students designate a space where they can downshift, have silence, and mediate. Project Hope is an effort to increase each students' understanding of how to take care of their mental health. In each session, students learn how to maintain their own mental health and are given free resources for additional help – whether it be the crisis chat line number or local programs to cultivate their love for drawing and music. In addition, this project opens the door for more conversations with teachers, fellow students, and family members about mental health.

Project Highlights: Something that went well was transitioning this project and adapting it to the needs at hand. While students were no longer in schools, mental health remained an important issue. I needed to adapt and be willing to change Project HOPE. I was blown away with the responses to the survey that students were given at the end of the project. While there were some lackluster replies, the responses were overwhelmingly positive and appreciative comments.

Below are just a few of the positive comments from 9th and 10th grade students who completed Project HOPE:

- "I liked Project Hope because it was time to think about everything like love and having faith with everything going on. It gave me time to think about everything and things going on right now in my life, ways to help what was going on."
- "Something that I liked about project HOPE was the work was helping me outside of school, like it was not just about school it was about school and my mental health."
- "What I liked about project HOPE was how there were different exercises that focused on the mental state in a positive way."
- "Something I liked about Project HOPE is how it was made to help you find hope even when you thought there was not. I like how it gives you a reminder that you are not alone even though quarantine is making you feel that way."

Number of project volunteers: 1-5

Number of people served by project: 500+

Number of people impacted by project: 500

Emily Sadeki

Discipline: Medicine (MD)

Institution: Mayo Clinic Alix School of Medicine

Project Title: Building Resilience Among Adolescents - An adolescent-led approach

Summary and Goals: This project originally started in 2018 working with a group of high school students working to create a mental health awareness group on campus. At that time, they were working on securing a designated room at their high school where students could receive peer support. We partnered with the local NAMI chapter to do trainings for the students that would be a part of the mental health awareness group. We also worked with the students to create educational announcements for a mental health awareness week. The second phase of this project was my focus for the PASP. The goal of the second phase was to secure a space in the high school for the students to use and secure resources for furnishing the space, connect the students to local leaders and organize mental health first aid training for graduating seniors.

Project Highlights: The students were able to receive a BRIDGE grant through connections with community leaders for \$6,000, which gave them the resources they needed to complete their peer support room at the school.

Number of project volunteers: 5-10

Number of people served by project: 25-50

Number of people impacted by project: 50

Nutrition, Physical Activity, and Obesity

Elizabeth Ghandakly

Discipline: Medicine (MD)

Institution: George Washington University SHS

Project Title: Plant-Based Nutrition Empowerment and Education Workshop

Summary and Goals: This project aims to address the target LHI by providing education and empowerment tools for a targeted regional subset of households with children in DC who have experienced Adverse Childhood Experiences (ACEs) to implement healthy plant-based dietary changes in a practical and sustainable way. The goal is to provide the desire and skills to implement life-long healthy eating practices and nutritional knowledge in kids, while also addressing potential hurdles such as such access to produce, high prices, insufficient time to cook, and overall comfort level in cooking. DC's lowest income wards (Wards 7 and 8) have one supermarket for every 70,000 people. Numerous studies have shown that these same areas also report higher-than-average occurrence of obesity-related diseases, including heart disease and diabetes, and numerous studies support that following a plant-based diet is associated with a lower risk of heart disease, better management of diabetes, and other positive health indicators.

Specifically, I implemented a bi-weekly interactive nutrition workshop and discussion group with kids at the TraRon Center. The TraRon Center is a nonprofit organization in Southeast DC with a mission to expose gun violence survivors to therapeutic modalities that may be absent from their current grieving and coping methods by working to equip kids exposed to traumatic gun violence with strategies to healthfully endure the complexities of loss while promoting community health and solidarity. The project builds on research that has shown that cardiovascular disease, type 2 diabetes, inflammation, and other adverse health outcomes are linearly correlated with ACEs, and the workshops include interactive cooking classes, nutrition education, and healthy eating workshops with the goal of curbing these effects by introducing nutrition-based interventions aimed at making positive life-long nutritional decisions.

Project Highlights: The kids at the TraRon Center have been amazing to work with. Their interest and engagement in our sessions is inspiring and makes it a joy to do the work. Some weeks, I would go into the center and start my session and ask the kids whether they had done anything different because of our last sessions. Often they would say that they asked to eat a new fruit or vegetable that we had tried last time for a snack or lunch where otherwise they would not have done so, or they would get excited to tell me about some other food experience and it created an opportunity to talk about nutrition and also nutrition challenges that stem from a variety of things, including all of the social determinants of health that play a part in the integration of a healthy diet.

Number of project volunteers: 1-5

Number of people served by project: 50-75

Number of people impacted by project: 50

Kyle Lau

Discipline: Medicine (MD)

Institution: University of Minnesota

Project Title: Veggie Rx: Improving Patient Health through Food Security

Summary and Goals:

Purpose: Providing Community Supported Agriculture (CSA) to improve the health of patients with food insecurity and chronic health conditions. This study aimed to determine whether providing CSA to patients was associated with improving food security and health conditions including obesity, hypertension, and diabetes.

Methods: Study Design: One-site, prospective cohort study. Setting/ Intervention: Family medicine clinic. Participants: 21 patients who were identified by family physicians as being food insecure. Measure/ Main Outcomes: Participants completed a Pre and Post survey assessing their vegetable intake and eating behavior. Surveys were done in person with a medical assistant. Weight, BMI, Blood Pressure, and A1c were gathered based on chart review. Participants picked up their weekly CSA at clinic for the duration of 20 weeks.

Results: 10 participants had pre and post program weight, BMI, blood pressure, and A1c available at the time of chart review 4 months after the program ended. Average participant weight before the intervention was 185.8 pounds and after was 193.7 pounds with an average increase of 7.9 pounds. Average BMI before the program was 33.1 kg/m² and after was 34.2 kg/m² with an average increase of 1.1 kg/m². Average systolic blood pressure pre-intervention was 120.6 mmHg and 124.3 mmHg post with an average increase of 3.1 mmHg. Average Hemoglobin A1c before the intervention was 8.3% and after was 7.1% with an average decrease of 1.2%.

Conclusions: Compared to before the intervention, participants who received CSA were more likely to reduce their A1c. Weight, BMI, and Blood Pressure were found to most likely increase after the intervention. More research is needed to determine eating behavior changes after the program.

Project Highlights: Through my relationships I developed with patients, I helped recruit clinic participants to this program. I distinctly recalled a patient with chronic pain finding some comfort in receiving her vegetables. Even though she had a difficult living situation, these vegetables—that were available consistently each week—permitted her to look after her own health.

Number of project volunteers: 1-5

Number of people served by project: 1-25

Number of people impacted by project: 50

Daniel Mai

Discipline: Medicine (MD)

Institution: Eastern Virginia Medical School

Project Title: Healthy Eating and Living Spiritually (HEALS) Project

Summary and Goals: Introduction: According to the latest Community Health Status Assessment, Norfolk currently faces higher rates of adult obesity (31%) and physical inactivity (25%), when compared to other regions of Virginia (27% and 22%, respectively). With higher rates of obesity and physical inactivity, individuals may be at higher risk of developing chronic diseases, such as hypertension and cardiovascular disease. As an innovative solution on preventative healthcare, the Healthy Eating and Living Spiritually (HEALS) Project aims to identify food deserts within Norfolk and educate community members about proper nutritional and exercise habits by utilizing a “Teach Back” approach to ensure understanding. Methods: Utilizing information from the Norfolk Departments of Public Health and Economic Development, communities with food deserts were first identified and evaluated for at-risk populations most susceptible for developing chronic diseases. Subsequently, pilot health fairs were initiated, where individuals could participate in educational sessions about proper nutrition

and exercise habits. At the end, participants were randomly selected to “Teach Back” what they learned. Participants were invited to complete a pre-session and post-session survey to assess understanding. Results: To date, 46 participants total have participated in our educational sessions. In the pre-session survey, 40 (87%) reported that “I do not know how to properly interpret a nutrition label” and more strikingly, 35 (76%) responded that “I do not always understand what my physician (if I have one) says.” Of the 38 (83%) participants who also completed the post-session survey, 34 (89%) reported “My understanding of nutrition and exercise has improved.” Discussion: Participants found the “Teach Back” strategy and educational sessions to be effective in improving their understanding of proper nutrition and exercise. Through these efforts, the aim is to impact the perpetuating cycle of poverty and poor healthcare outcomes, ultimately impacting the incidence and prevalence of chronic diseases within Norfolk.

Project Highlights: One anecdote was memorable: A Guatemalan family of 4 who had recently immigrated to the United States within the past 2 years had stopped by to listen to our presentation. The mother, who had been utilizing a large amount of lard and canned items for cooking, shared with us that she was previously unaware of the substantial difference in caloric and sodium intake between a similar alternative, such as fresh, bagged beans. She was so astounded that she asked us if she could return at a later date to take notes. Her enthusiasm was infectious and motivated us to continue serving these communities.

Number of project volunteers: 5-10

Number of people served by project: 25-50

Number of people impacted by project: 50+

Ashley McNeal

Discipline: Medicine (MD)

Institution: Mercer University School of Medicine

Project Title: Mercer WEST @ Mulberry Market

Summary and Goals:

Purpose: Obesity significantly impacts long-term health by increasing the likelihood of heart disease and type 2 diabetes. As more children continue the unhealthy lifestyle of obesity and let it follow them into adulthood, they will influence their children and future generations. I believe the best way to prevent this spread of obesity is to promote healthy lifestyles with nutritious diets and regular exercise. Mercer WEST is collaborative initiative that promotes increased exercise good nutrition, food education and increases family engagement for children and parents at Alexander II elementary school.

Methods: Once a month, families from Alexander II Elementary School meet at Mulberry Market in Tattnell Square Park. They are encouraged to participate in an exercise activity, talk to medical students about healthy lifestyles, taste test a seasonal fresh fruit or vegetable and shop at the market for produce using a \$2 coupon provided to each student.

Results: At the project kickoff event in March 2019, 41 families attended including 63 children and 8 market vendors. The market manager stated that it was the “best market turnout of customers in a while”. Since then, the project has reached over 400 parents and students. The market has expanded to include 16 vendors due to more attendance at the market.

Conclusions: This project has grown exponentially in more ways than expected. It was welcomed with open arms by Alexander II faculty, principal and students. A successful partnership with Mulberry Market has attracted new

vendors. The Mercer community has showed support with student volunteers from undergraduate and master programs. Community organizations in Bibb County has sponsored the project by donating produce for the taste test booth and funding for the coupons. Most importantly, families of Alexander II elementary students have accepted the challenge of living healthier lifestyles.

Project Highlights: We have had great positive feedback. The market has been very welcoming. As more students and families have started attending the market, the number of vendors has doubled.

Number of project volunteers: 20+
Number of people served by project: 300+
Number of people impacted by project: 400

Areeka Memon

Discipline: Medicine (DO)

Institution: Edward Via College of Osteopathic Medicine

Project Title: Attitudes and Behaviors of Parents Regarding Their Child's Health

Summary and Goals: A group of students and I found a statistic that ranked Virginia as #1 in obese children on WIC in a certain age group. Living in Blacksburg, VA for school, we witnessed many of the social determinants of health that could be contributing to this statistic. We decided to partner with a local pediatrics clinic to try to provide some insight on this problem as well as educate the population. We started by giving out surveys to parents at the clinic to assess their attitudes and behaviors regarding healthy eating. We analyzed this data and found that many of the parents had the knowledge regarding healthy eating but did not implement it. We decided to target the same population by providing educational resources in the office. We made brochures that included various resources for parents and also provided educational material to the clinic to be played in the waiting room.

Project Highlights: It was really great to have a passionate team that was always willing to take on extra volunteer shifts for surveys and put in extra hours to work on materials.

Number of project volunteers: 10-20
Number of people served by project: 100+
Number of people impacted by project: 1500

Stephanie Stewart

Discipline: Nursing

Institution: University of Missouri - Columbia

Project Title: Providing Exercise Opportunities to Delay Parkinson's Disease Progression

Summary and Goals: There are almost one million people living with Parkinson's disease (PD) in the United States. As the second most common neurodegenerative disease, PD often robs people of their ability to engage in smooth and purposeful movements. The 'gold standard' medical treatment for PD remains the medication that was discovered in the 1970s and there is no medical treatment that has been shown to slow or halt the progression of the disease. Medications simply help to decrease some of the motor and non-motor symptoms caused by PD. However, multiple researchers have concluded that engaging in physical activity may actually slow the progression of PD. Within this project, those living with Parkinson's disease were encouraged and assisted to

participate in various forms of exercise. While some members attended classes 3-4 times per week, others only attended once or twice a week, while others attended sporadically. The exercise classes offered included a fitboxing class, a big amplitude movement class, and a yoga class. While no data was collected at this time, members frequently commented that the exercise classes helped them be more active and accomplish day-to-day activities easier. Additionally, there was a positive psychosocial component reported by many members due to exercising with others with PD.

Project Highlights: Watching individuals exercise with each other and smile was by far the greatest "story" I can share.

Number of project volunteers: 1-5

Number of people served by project: 1-25

Number of people impacted by project: 50-100

Reproductive and Sexual Health

Micah Brainerd

Discipline: Medicine (MD)

Institution: Michigan State University College of Human Medicine

Project Title: Increasing serostatus knowledge of HIV for Flint, MI Residents

Summary and Goals: The opioid epidemic has been plaguing the United States throughout the 21st century. As a result, intravenous drug users (IVDU) are at a significantly increased risk of HIV/HCV co-infection compared to the general population. Seroconversion following infection with HIV has a relatively long window for asymptomatic states, and increases the risk of transmission amongst patients who have little access to harm reduction techniques such as needle exchange services, safe injection practices, and naloxone training. Accessibility for this specific population has been a large barrier to appropriate health equity measures. The goal of this project is to increase serostatus knowledge amongst the previously untested population of Flint, MI >13-years-old with high-risk behavior patterns through a community health fair that will occur annually. The event will offer blood glucose screening, blood pressure screening, adult/youth vaccination clinics, STI testing, childcare including activities centered around nutrition/movies/sports/etc., mental health services and screenings on-site, and mindfulness/yoga. We hope that by offering a broad wellness event, we will be able to reach a larger proportion of our target audience to obtain a more accurate incidence and prevalence for the community. Unfortunately, the event for this year was postponed due to SARS-CoV-2 and the pandemic at hand to protect the community by termination of transmission.

Project Highlights: One particular success I'm most proud of was being able to develop relationships with so many different community organizations. It was the most challenging part of the entire process as well. I have always communicated well but lacked the confidence in the roll of a medical student to advocate effectively. This process changed that. Imposter syndrome became a thing of the past for me (for the most part anyway). Instead of saying I was "just a medical student." I started saying, "I have one more year until I'm a doctor." It changed my confidence in myself and ensured that I was advocating for a symbiotic relationship for this event. It really helped create trust in our program for future events as well.

Number of project volunteers: 10-20

Number of people served by project: 100+

Number of people impacted by project: >100

Jenna Januszka

Discipline: Pharmacy

Institution: University of the Sciences in Philadelphia

Project Title: Evaluation of the impact of student-run rapid HIV testing initiative on the rate of testing of adolescents in Philadelphia

Summary and Goals: The objective of this project was to increase adolescents' access to free, confidential HIV testing in Philadelphia through a student pharmacist-run testing initiative, Philly Youth Testing (PYT). Current data indicates HIV diagnoses among adolescents in Philadelphia aged 15 to 24 is climbing and make up 26.9% of new diagnoses. Previous literature suggests pharmacy personnel are valuable sexual and reproductive health resources for adolescents by allowing more convenient, direct access to these resources. A survey administered to 55 adolescents in winter 2019 revealed that adolescents valued incentives, proximity of testing location, and testing hours to be the most influential on their likelihood to seek HIV testing. Almost 90% of respondents could not correctly identify the bodily fluids capable of transmitting HIV and 88% were unaware that individuals with an undetectable viral load were unable to transmit the virus to others. Several community-based HIV testing events were planned and a survey was developed to capture participants' current risk behaviors, confidence with their own HIV knowledge, and perceptions of pharmacists as providers of reproductive health services. The survey also contained the same knowledge-based questions on HIV transmission and prevention as the needs assessment survey and produced similar results. All but one of the HIV testing events were cancelled due to the COVID-19 pandemic. A total of three adolescents consented to testing and 51 adolescents were surveyed. Of the adolescents that opted not to test with PYT, the most common reasons for not testing were not being sexually active and having been tested previously at school. Preliminary analysis of this survey showed that the majority of respondents would be either "somewhat likely" or "extremely likely" to utilize youth-friendly pharmacy services (YFPS) such as STD/HIV testing and contraception counseling. This data may be used by future investigators for the implementation of YFPS.

Project Highlights: After several not so successful attempts to gather data through Needs Assessment surveys in West Philadelphia, I moved my efforts to a pizza shop in North Philadelphia across from a large public high school. Because the other attempts were not so successful, I went by myself rather than recruiting friends to help administer the surveys.

In a little over an hour, I was able to recruit approximately 40 adolescents to take the survey and receive their pizza incentive. It was grossly cold outside, and I could no longer feel my toes. It was exhausting running after them for their survey completion verification screens while simultaneously answering all of their questions. However, at the end one very interested student asked how I got involved in the project and how he could potentially do a project like this in college. What I thought would be a slow afternoon with optimistically about 15 surveys turned out to be an extremely successful event and one of my favorite memories from my scholar year, aside from Testing and Linkage to Care certification classes with my mentor. It was great to know that I was able to increase their knowledge of HIV transmission and prevention and that I had inspired an interest in even just one of them to pursue a project in public health.

Number of project volunteers: 1-5

Number of people served by project: 75-100

Number of people impacted by project: 200

Social Determinants

Eloy Martinez Jr.

Discipline: Medicine (DO)

Institution: University of the Incarnate Word School of Osteopathic Medicine

Project Title: The Role of Social Determinants of Health in the Onset of Type 2 Diabetes Mellitus

Summary and Objectives: Type 2 Diabetes Mellitus (T2DM) yields a growing concern in the global population due to its constant rise in prevalence and association with multiple comorbidities found to impact life expectancy. The diagnosis of diabetes is highly attributed to modifiable lifestyle behaviors and choices. However, the impact of community and social determinants of health account for a factor that is highly overlooked when identifying causes attributed to the onset of diabetes in today's populations. Current literature provides sufficient evidence to establish correlations between decreased prevalence of diabetes in communities with sufficient walkability, access to green space, and access to food. In regions such as Bexar County, where rates of diabetes are notably high, it is feasible to investigate these indicators in relation to the prevalence of diabetes. This review aims to analyze the association between community health and T2DM. The findings of this analysis reveal notable relationships between the aforementioned three indicators and T2DM risk and onset, as well as the role that these social factors play in diabetes prevention. Results of this review support the positive impact that increased walkability and access to green space can have in reducing risk of diabetes and obesity. Additionally, these findings not only demonstrate the support that proper access to food can have in reducing similar risks, but also demonstrates the effects that food access can have on declining mortality rates attributed to diabetes as well.

Project Highlights: Despite having to drastically alter my project and pursue a different avenue to research, I am pleased to say that there is still a positive outcome to this project. If presented effectively, this research could provide a better quality of life and better health outcomes for a vulnerable population in South San Antonio that is estimated to have a reduced life expectancy of approximately 10 years when compared to their city district counterparts on the North side. Also, this research can easily serve as foundational knowledge to return to my original project plan and proposal, which would target these similar disparities noted in our youth.

Number of project volunteers: 1-5

Number of people served by project: 100

Number of people impacted by project: 100

Wenyuan Zhou

Discipline: Medicine (MD)

Institution: Northwestern University Feinberg School of Medicine

Project Title: Qualitative Evaluation of Playtime with Lurie at the Library: A Pilot Project to Expand the Reach Out and Read Initiative in Chicago through a Diaper Incentive

Summary and Goals: Playtime with Lurie at the Library is a pilot project in Chicago that seeks to expand upon the nationwide Reach Out and Read initiative to improve childhood literacy. The project does so by offering low-income families who attend Lurie's Uptown clinic a diaper incentive to attend weekly storytimes at the local Bezarian library. In order to evaluate the effectiveness of this program and discover areas for improvement, a qualitative research study was conducted. 3 participants were interviewed about their thoughts on the program,

benefits received, impact the program has had on reading to their children, and suggestions for improvement. These data were then coded and analyzed for themes. The 3 major themes to appear were that: subjective criteria were more important than objective criteria; benefits gained, which were multi-faceted, drove families to continue attending; and word-of-mouth was strong, with little suggestion for improvements, yet there was no steady increase in attendance. The results point to the initial phase of the pilot project as a success, although there is room for improvement. With the themes gathered, there is a clear path for what lies next – gathering of more data, implementation of changes, continual reassessment, and eventual expansion of the project to all of Chicago.

Project Highlights: The greatest success was probably how much recurrent families loved the program. They told us that they would come back to the storytimes even if there were no diaper incentive because of all the different benefits they gained. The storytimes did not just solidify the participants' belief in reading to their children, they also were able to learn about different library resources, be more patient with their children, and improve their English. It was great to hear how much they loved it so that we know which parts of the program should be continued in the future.

Number of project volunteers: 1-5

Number of people served by project: 1-25

Number of people impacted by project: 25

Substance Abuse

Keturah Crease

Discipline: Pharmacy

Institution: Xavier University of Louisiana College of Pharmacy

Project Title: The Crescent COnnect

Summary and Goals: My project The Crescent COnnect aimed to Combat Opioid Use Disorder in the New Orleans Community. The educational and interactive series focused on community outreach to educate opioid users on the importance of naloxone administration in emergency situations, bring awareness to local pharmacies about their role in offering services and additional support to patients in need, and advocating for an updated prescribing protocol for patients with chronic pain. During monthly educational workshops and webinars, I educated and trained patients and their caregivers on key topics surrounding the opioid epidemic. Topics included: recognizing the signs and symptoms of opioid overdose, how to properly administer naloxone in emergency situations, proper disposal of expired/nonessential medications, and identification of rehabilitation services and/or enrollment in needle exchange programs. As a retail pharmacy intern, I had the opportunity to interact firsthand with pharmacists in the field to gauge their knowledge, tolerance, and teaching methods towards patients who frequently filled opioids at the pharmacy. Recording pharmacist's thoughts and concerns towards the opioid epidemic allowed me to foster an open dialogue with more patients, providers and caregivers understanding the concerns of the community as a whole. The last piece of my project focused on developing and advocating for a revised outpatient pain management protocol post-operatively. The greatest impact of the workshops was creating a lasting positive dialogue and network to continue to reduce the stigma of this patient population ultimately providing them with the best care.

Project Highlights: After patient and caregiver education even at the pharmacy, the caregivers were always very appreciative of the time I took to educate them. A lot of my patients frequented the Walgreens where I worked, and I would spend time educating them on my days off. My patient's seeing me make the extra effort is what really provided great word of mouth about my webinars that would follow.

Number of project volunteers: 5-10

Number of people served by project: 100+

Number of people impacted by project: 200

Kaitlyn Riggs

Discipline: Pharmacy

Institution: University of Missouri - Kansas City

Project Title: Substance Use Prevention in High-Risk

Summary and Goals: For my project, I utilized the Generation Rx toolkits developed by Ohio State College of Pharmacy in partnership with Cardinal Health, to deliver substance use prevention education to 10 different counties among Southwest Missouri from May 2018-2019. I targeted elementary, middle, and high school students as well as college freshmen. Additionally, I had a particular focus on foster children and foster families. I used grant funding to be able to provide prescription drug lock boxes for foster families who attended my presentations in order to give them a safe way to store medications.

Project Highlights: One of the most powerful and rewarding experiences I had in implementing my project was being able to secure grant funding to purchase prescription drug lock boxes. One of my foster family presentations had over 200 foster parents in attendance and being able to provide them with this education as well as a safe means for storing their medications was very rewarding. They were all so appreciative of being able to practice these safe measures at home and using our message to teach their children about safe medication practices.

Number of project volunteers: 20+

Number of people served by project: 500

Number of people impacted by project: 3500

Veronica Vigilar

Discipline: Medicine (MD)

Institution: Wayne State University

Project Title: Impact of Cannabis Harm Reduction Interventions (CHRI) on Young Adults in an Ambulatory HIV Clinic Setting

Summary and Goals:

Introduction: Heavy cannabis use among our patients in the setting of Michigan's legalization of recreational cannabis provide an impetus to further understand cannabis's impact on this specific population and reduce its potential risks.

Methods: 36 patients from a Detroit HIV clinic who met inclusion criteria: ages 13–25 years, current cannabis user, and provided written consent, were randomized into two intervention groups, administered a pre-questionnaire followed by an intervention (educational session or educational session with motivational interviewing), with 23 participants completing a post-questionnaire. Data was coded/analyzed using SPSS. Statistical analysis included Pearson correlation, t/paired-t, and Chi-squared tests. Statistical significance was assigned at $p < 0.05$.

Results: Among participants ($n=36$), 89% male, 67% black, 78% gay/bisexual, 36% met criteria for CUD, of which 62% were severe. Patients with CUD ($n=23$) more frequently reported panic attacks ($p=.02$), adjustment disorders ($p=.001$), childhood sexual abuse ($p=.03$), and multiple unsuccessful attempts to decrease marijuana use ($p=.02$). At baseline, they more frequently used cannabis in general ($p=.03$), and also with other substances ($p=.047$). After either CHRI, the following behaviors decreased: cannabis use in general ($p = .002$), while fulfilling responsibilities ($p=.001$), with other substances ($p=.01$), around children or pregnant women ($p=.01$), and while driving ($p=.001$).

Conclusion: This pilot study noted concerning characteristics of patients with CUD and showed that both CHRIs had an overall limited positive impact on our specific study population with significant decreases in cannabis risk behaviors. Further studies are warranted to confirm our findings.

Project Highlights: Multiple patients who I thought would likely not change their behavior or motivation to change, showed significant changes toward decreasing marijuana use and risky marijuana related behaviors.

Number of project volunteers: 1-5

Number of people served by project: 25-50

Number of people impacted by project: 40

Dillan Villavisanis

Discipline: Medicine (MD)

Institution: Icahn School of Medicine at Mount Sinai

Project Title: An Initiative to Identify and Treat Hospitalized Patients with Opioid Use Disorder

Summary and Goals:

Background: Persons with opioid use disorders (OUD) represent a disproportionately high percentage of hospitalized patients, have greater lengths of stay and readmissions, can incur higher costs, and are at greater risk of drug-related death immediately post-discharge.

Methods: Mount Sinai Hospital is a large, urban, tertiary-care hospital without a formal addiction medicine consult service. REACH-IN is a quality-improvement program co-led by a full-time hospitalist and medical trainees that identifies patients with OUD, assists in the management of withdrawal and with the initiation of buprenorphine, and facilitates the linkage to ongoing treatment post-discharge. Patients are identified via 1) a daily electronic report of inpatient encounters that document opioid use, or 2) a direct referral from providers. Eligible patients are evaluated, started on buprenorphine if appropriate, and offered a facilitated referral to either REACH, an affiliated primary care program, or another community-based provider for continued treatment.

Results: Between April 2018 and October 2019, REACH-IN evaluated 104 inpatients, and initiated buprenorphine for 25 (24%) of them. Of those patients started on buprenorphine during their hospitalization, 17 (68%), 13

(53%), and 11 (44%) were engaged in care – as defined by having an active prescription for buprenorphine – at 30, 60, and 90 days post-discharge, respectively. A sub-analysis compared 48 evaluated patients and 13 patients started on buprenorphine while hospitalized with controls matched to similar patients from 2016-2018 based on diagnosis, complexity, age, treatment status, service, and discharge disposition. It found a non-significant trend toward a reduction in readmissions. Compared to 19.1% for matched controls, 30-day readmission rates were 12.2% for all evaluated patients ($p = 0.40$) and 7.7% for patients started on buprenorphine ($p = 0.34$).
Conclusions: Interaction with REACH-IN and inpatient initiation of buprenorphine were associated with high rates of engagement with treatment post-discharge and a trend toward a reduction in 30-day readmissions.

Project Highlights: Working with a team to improve the lives of patients with OUD.

Number of project volunteers: 20+

Number of people served by project: 100+

Number of people impacted by project: 100

Tobacco

Babajide Akinnuwa

Discipline: Public Health

Institution: Benedictine University

Project Title: Secondhand Smoke Exposure in Private Multi-Unit Housing

Summary and Goals:

Introduction: Secondhand smoke (SHS) exposure is associated with adverse health outcomes such as cancer and heart disease. Increased risk for acute respiratory infection, ear problems, Sudden Infant Death Syndrome (SIDs). Exposure to SHS in public settings has been reduced due to comprehensive smoke-free laws restricting smoking in all indoor areas. Laws prohibiting smoking in private homes are still lacking. In 2011 - 2012, the U.S surgeon general concluded that 58 million U.S nonsmokers (25.3%) including 15 million children ages 3-11 years old were exposed to SHS. (Meng et.al, 2016) Residents of private multi-unit housing (MUH) are especially susceptible to this involuntary exposure to SHS which can enter living units from nearby units, shared areas where smoking occurs. It can come through the walls, windows, and ventilation system. It is interesting to add that 80 million of the U.S population live in multi-unit housing (MUH).

Methods: This mapping inferential study using information from multiple literature review sources highlights the barriers and challenges to adopting a smoke-free policy.

Results: Despite strong evidence that public MUH residents are in favor of these policies, evidence of cost savings, the rate of implementation of these policies are still low.(Meng et.al,2016). Some of the barriers identified are fears over increased vacancy, increased turnover, and issues with enforcement of this policy among managers and owners.

Conclusion: This study elaborates on the demographics of people most likely to be exposed to secondhand smoke exposure in private multi-unit housing. The challenges and barriers to adopting this policy despite interest among residents. Awareness programs to educate private multi-housing unit owners and managers on the overall benefits of implementing this policy may be necessary.

Project Highlights: During the course of completing this project, I learned some important things:

- 1) Private multi-unit housing residents are open to adopting a smoke-free policy.
- 2) Most residents of private multi-unit housing are people with low income, racial minorities, children, and elderly.
- 3) Private MUH managers and owners are often concerned about vacancies, the turnover cost, and issues with implementing the policy

Number of project volunteers: 1-5

Number of people served by project: 1-25

Number of people impacted by project: 10

Alex Ockerse

Discipline: Physician Assistant

Institution: Case Western Reserve University

Project Title: Science and Vaping: Addressing adolescent perceptions of vaping risk with illustrated videos

Summary and Goals: The "Science and Vaping" project is a series of three illustrated videos targeting the low perceived risk of vaping among adolescents. The project was created with the following goals in mind:

1. Introduce adolescents to basic concepts in science and medicine that pertain to vaping.
2. Empower adolescents with a deeper understanding of the health consequences of vaping.
3. Encourage adolescents to cultivate an increased perception of vaping risk by personally considering the associated health consequences.

The videos range from five to seven minutes in length and include content on the mechanics of vaping, the makeup of e-liquid/aerosol, the effects of vaping on the lungs, the addictive properties of nicotine, and nicotine's effects on the developing brain. The content is drawn from peer-reviewed literature and vetted sources, such as the Stanford Medicine Tobacco Prevention Toolkit. The video series, along with an associated worksheet, is being distributed to middle- and high-school health and science classes around Cleveland, Ohio for adoption into online curricula. The videos can be accessed with the following link:

<https://vimeo.com/channels/scienceandvaping>.

Project Highlights: The encouraging aspects of implementing the project arose as the pieces were coming together in the last few months. Given the fact that one of the most significant challenges I faced early on was accomplishing specific, goal-directed tasks, it was fun to work on practical components, such as scripting and filming, and see the project come to fruition. Additionally, it was very encouraging to see the amount of support that the project received when the videos were completed. A group of my professors helped me out tremendously by distributing the video curriculum to their contacts in middle and high school education. I also received valuable feedback from my peers, friends, and family on helpful improvements I could make.

Number of project volunteers: 5-10

Number of people served by project: 100+

Number of people impacted by project: 200