

**Priya Spencer**

**SITE:** Detroit Life Is Valuable Everyday (DLIVE)

**TITLE:** Looking Beyond the Individual's Acute Violence-Related Injury

**INTRODUCTION:** Detroit Life Is Valuable Everyday (DLIVE) is a hospital-based violence intervention program started by Dr. Tolulope Sonuyi in 2016. Housed in the Emergency Department of Sinai-Grace Hospital of the Detroit Medical Center, the program aims to prevent re-traumatization in patients of violent injury trauma. The program is based on the premise that violence has a cyclical pattern which can be disrupted with effective interventions at an opportune moment; violence, therefore, is preventable. The program is guided by trauma-informed care: assessment of individual risk factors for violence and creating a plan of service to help that individual avoid reinjury and traumatization.

**METHODS:** Practicum activities were focused on understanding factors that put individuals in a vulnerable position to either be a victim of violence or perpetrator of violence. Analytics and assessment skills were applied in various ways through different projects which included: 1) literature reviews to define violence-related injury as a public health problem, 2) obtaining and interpreting data from publicly available databases to show the extent of this problem and contributing risks factors in the community, 3) converting data into informative graphs, and 4) assessment of social determinants of trauma and the barriers DLIVE participants face to live a socially productive life.

**OUTCOMES:** I gained a deeper understanding of how individuals interact with their environments both immediate and remote and how this transaction between individuals and their environment can be improved. I wrote a research proposal for a retrospective review to establish re-injury rates for previously injured patients with the aim of appropriately directing and strengthening program's resources at Sinai-Grace Hospital.



School of Medicine

Department of Family Medicine  
and Public Health Sciences

## **MPH Practicum Showcase Student Abstracts December 7, 2018**

## MPH Student Practicum Experience— Fall 2018

The Master in Public Health (MPH) Program at Wayne State University is pleased to present the Fall 2018 student practicum abstract book highlighting students' public health practice experiences. We would like to express our gratitude and appreciation to all of the organizations, agencies and businesses that hosted and supported our students and provided them with practical public health experiences. The MPH Program would like to congratulate the students for their hard work, accomplishments and contributions to the local public health community.

### **Blake Sanford**

**SITE:** DMC Sinai Grace Family Medicine Residency

**TITLE:** DMC Sinai Grace Family Medicine Residency Research and Quality Improvement Coordinator

**INTRODUCTION:** The DMC Sinai-Grace Family Medicine Residency is based at the Thea Bowman Health Center, which is a Federally Qualified Health Center in Northwest Detroit. To graduate, residents are required to perform a continuous quality improvement (CQI) project and a scholarly activity. My practicum was to serve as the Research and Quality Improvement Coordinator at the residency, helping residents with research methodology, data analysis, preparing scholarly presentations, and incorporating public health principles into their projects.

**METHODS:** From September 1, 2018 to October 30, 2018, I served as the Research and Quality Improvement Coordinator for the residency. I worked directly with residents and faculty on study design, Institutional Review Board (IRB) applications, and data analysis. My objectives for my time in this role were 1) To assist a senior faculty member in the design of a pre-post survey, IRB application, and data analysis to assess the impact of an obesity management interactive didactic session on resident knowledge and preparedness to care for patients experiencing obesity. 2) To assist four residents with study design and IRB applications for quality improvement projects on patient follow up for sexually transmitted infection (STI) treatment and monitoring patient flow through the clinic while incorporating public health principles into these projects.

**OUTCOMES:** For the STI treatment follow-up and patient flow projects, objectives, detailed study methodologies and specific deadlines were established and IRB applications were submitted, which are now in the revision stages. An IRB application was submitted and approved for the obesity management resident education project. Pre and post surveys were completed by residents and the results were analyzed. We found that residents showed a significant improvement in questions designed to test their knowledge of obesity management after the didactic session. However, the average post score was still only 68% and no significant improvement was noted for questions related to health equity. Additionally, no improvement was noted in how prepared residents felt to manage patients with obesity. These findings lead us to believe that while an interactive didactic session may have been informative, it did not fully prepare residents to manage patients with obesity. Thus, we propose a longitudinal obesity curriculum be implemented over all three years of residency with emphasis on implementing weight management counseling strategies with patients.

## **Nimrat Sandhu**

**SITE:** Wayne State University Campus Health Center

**TITLE:** Introduction of Pre-exposure Prophylaxis (PrEP) Program at Wayne State University Campus Health Center

**INTRODUCTION:** In 2015, the Centers for Disease Control and Prevention (CDC) reported 39,782 new cases of HIV, up from 38,500 cases in 2015. Youth constitute nearly 39 % of those diagnosed. PrEP is a new approach to HIV prevention. It was approved by Food and Drug Administration (FDA) in 2012 for HIV prevention. It enables at-risk individuals to protect themselves by taking Truvada, a once-daily pill along with regular condom usage. It lowers the risk from sexual transmission by 90 % and injection drug use by 70 %. Previously, potential users were referred to centers located off campus. Some lacked on-site laboratory or did not accept the student's insurance. Hence, many students were lost to follow-up.

**METHODS:** An extensive literature review was conducted using PUB-MED and Google scholar. Meetings were conducted with current PrEP providers to learn about program delivery and develop an evidence-based protocol. A physical binder and digital database were created. Information booklets, patient and provider contracts were prepared. Information was collected about billing codes and insurance coverage. Protocols were developed to manage patients with no insurance and special cases such as pregnant females and hepatitis B patients. Guidelines were developed to evaluate students as potential users and educate them about the program.

**OUTCOMES:** Potential users will be counseled regarding risks and benefits of therapy. They will have access to program resources on campus, receive email appointment reminders and text messages to enhance retention. Student volunteers will be trained to conduct information sessions and set up booths to eliminate misconceptions and enhance program utilization. The health center shall apply for grant funding to launch the program.

## **Sameen Abidi**

**SITE:** Michigan Antibiotic Resistance Reduction Coalition

**TITLE:** Appropriate Antibiotic Use and Resistance Awareness conducted by Michigan Antibiotic Resistance Reduction Coalition (MARR Coalition)

**INTRODUCTION:** Antibiotic resistance is one of the biggest public health concerns of our time. The MARR Coalition has developed a training program to teach elementary and middle school students about antibiotic resistance and what they can do to be a better steward of antibiotics. Each year in the U.S., at least 2 million people get an antibiotic resistance infection, and at least 23,000 people die because of infection. Antibiotic resistance is accelerated by the misuse and overuse of antibiotics. Steps can be taken at all levels of society to reduce the impact and limit the spread of resistance. The objective of this program is to increase the awareness of antibiotic resistance and implement best practices to improve the use of antimicrobial agents in communities throughout the state of Michigan with collaborative efforts of academic, government and community partners.

**METHODS:** The 45-minute antibiotic stewardship program is designed as an introduction to the full lesson plan and is presented by MARR Ambassadors (Wayne State University pharmacy students) and MPH student. Participants received the 15-minute introductory presentation about different types of germs and awareness about appropriate antibiotic use and resistance, followed by the 30-minute interactive session of student activities to demonstrate how the germs transfer from person to person and appropriate measures to stop the spread of germs. Pre/Post-tests were performed to evaluate participant's knowledge of appropriate antibiotic use. The full lesson antibiotic stewardship program was developed in alignment with Next Generation Science Standards and was intended to be conducted by elementary/middle school teachers over a 3-day period. The program concluded with sharing feedback among participants.

**OUTCOMES:** A total of 140 participants/students completed the program. Pre/Post-test results showed that participants improved the knowledge about antibiotic resistance and appropriate antibiotic use significantly (80% to 90% improvement). Majority of the participants/students acknowledged that training experience would be applied in their future use of antibiotics. Overall, this lesson plan to train young students and teachers was well received and successfully implemented. Future planning is to expand this program to a larger scale based on the experience and feedback from this program.

## Jihan Aiyash

**SITE:** Wayne State University's Nutrition and Food Science Department (NFS)

**TITLE:** Can An Apple A Day Really Keep the Doctor Away? Good Food Ambassadors and Their Role in Non-Pharmaceutical Treatments

**INTRODUCTION:** Wayne State's NFS department teamed up with the Detroit Health Department to carry out the Fresh Rx program. Fresh Rx, is a fruit and vegetable "prescription" given by clinicians, as a secondary prevention method for chronic diseases, and promotes a healthier food system. Program participants are provided with access to fruits and vegetables, as well as nutrition education, at local farmers markets. This market season launched the incorporation of Good Food Ambassadors (GFAs) to teach participants about different nutrition scopes on a weekly basis.

**METHODS:** Various tasks were undertaken over course of the practicum for the launch of the GFAs. With the Detroit Health Department's Food Access & Chronic Disease Prevention manager and a WSU-NFS PhD candidate, I co-developed a curriculum for the GFAs to implement at the Fresh Rx Program. GFAs received training from me and the PhD candidate over the course of a week. I developed, and piloted, an evaluation of training for effectiveness for the GFAs. I collected data every week from the GFAs and shared data in real time to the program directors [as needed] for modifications to the program. Survey results were analyzed weekly.

**OUTCOMES:** The curriculum and training was very effective for GFAs at sites where there was heavy Fresh Rx participant traffic. Low Fresh Rx participant elsewhere revealed opportunities for program improvement.

## Ria Perez

**SITE:** A Community Health Needs Assessment of Hamtramck  
**TITLE:** Wayne County Healthy Communities (Hamtramck Site)

**INTRODUCTION:** Wayne County Health Communities (WCHC) is a federally qualified, accredited clinic offering a variety of health care services. WCHC aims to provide affordable, quality care and promote health awareness education. Motivated by WCHC's need to understand the health needs of Hamtramck and the desire to meet those needs, I conducted a community health needs assessment of Hamtramck.

**METHODS:** With guidance and input from members of WCHC, I developed a survey as my mode of assessment. My survey asked questions about various aspects of the health of the respondent, along with questions on the respondent's views of the health needs of Hamtramck. I piloted the survey, distributing it online, to businesses and organizations within Hamtramck, and to patients within the clinic. After collecting survey results and noting changes the survey needed, I revised the survey and distributed it to a more specific population: those 14 or older who live, work, and/or go to school in Hamtramck. As before, I collected and analyzed the data through SurveyMonkey, a data analysis program.

**OUTCOMES:** Results from the survey shed light on socioeconomic and environmental factors that threaten the health of Hamtramckans. These include poverty, lack of education, the unfavorable state of the roads/walkways, unsafe driving, littering, and the concern-raising air quality.

## **Sarah Parker**

**SITE:** Region 2 South Healthcare Coalition (R2S)

**TITLE:** Emergency Preparedness Evaluation in Southeast Michigan

**INTRODUCTION:** The Region 2 South Healthcare Coalition (R2S) is one of eight healthcare coalitions in Michigan created to ensure statewide readiness and interagency collaboration to respond to public health emergencies. Coalition member organizations work together to maximize capacity and capability during medical and public health emergencies through information sharing, mutual aid, and response coordination. One of the active members supporting R2S's mission is the Children's Hospital of Michigan in Detroit. In anticipation of public health threats, hospitals and healthcare agencies must develop, exercise, and refine plans to handle an influx of patients during an emergency. The overarching goal of this experience was to develop the foundation for evaluating a hospital emergency exercise.

**METHODS:** Various tasks were undertaken throughout the practicum including professional development learning activities and community preparedness certification programs to form a basis for understanding and analyzing the hospital emergency exercise. Engaging a multi-disciplinary team to plan and evaluate the exercise allowed players to demonstrate proficiency and competency in a realistic scenario. Steps were also taken to prepare and organize the hospital's emergency response supplies, in turn improving efficiency to respond should a public health emergency occur.

**OUTCOMES:** Detailed exercise data were recorded to inform an after-action report (AAR). The AAR will be used to implement changes and improve hospital capabilities. Ultimately, the AAR will be applied in developing an Improvement Plan which outlines a corrective action timeline and associated short- and long-term goals to facilitate hospital threat response.

## **Netisha Gupta**

**SITE:** Wayne County Department of Health, Wellness, & Veterans Affairs

**TITLE:** West Nile Virus Education & Prevention Program

**INTRODUCTION:** West Nile virus (WNV) is carried by the Culex Pipiens species of mosquitos, outbreaks of which have been reported every summer since 2002 and urban areas in Southwestern Lower Michigan (Macomb, Oakland and Wayne counties) and Western Lower Michigan (Kent county) classifying it as an emerging disease of interest. An indication that a community may be affected by WNV is the presence of sick acting or dead birds, especially crows and blue jays. WNV can affect anyone. However, individuals with compromised or vulnerable immune systems may be at a greater risk. This includes elderly and children (in whom a severe form of the illness can emerge).

**METHODS:** I was given access to data from previous years pertaining to WNV and its history in Michigan and asked to identify: 1) common causes of WNV 2) who is at risk in the community 3) prevention methods 4) Educational pamphlets.

**OUTCOMES:** Objectives and goals of this program were met by first gathering data on summer programs from 2016-2017 program proposals. Presentations using visual aids were conducted for groups containing a mix of children aged 5-17 years old within the community. At the conclusion of these sessions, educational pamphlets regarding WNV prevention were distributed. It was found that community members were very receptive to the informational seminar.