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Master of Public Health Program – Public Health Practice

INTRODUCTION

- Antibiotic resistance is one of the biggest public health concerns of our time.
- 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 create awareness of antibiotic resistance and implement best practices to improve the use of antimicrobial agents in communities with collaborative efforts of academic, government and community partners.

BACKGROUND

- Michigan Antibiotic Resistance Reduction Coalition (MARR Coalition) is a nonprofit organization established in 1997 through a grant from General Motors Corporation to help reduce unnecessary antibiotic prescribing in Michigan.
- Since 1997, MARR Coalition, has grown to include a broad coalition of local professional and community organizations focused on the issue of unwarranted use of antibiotics.
- MARR Coalition is supported by an annual competitive grant from Centers for Disease Control and Prevention (CDC).
- Activities of MARR Coalition are overseen by the Executive Director, Dr. Elaine Bailey, who works collaboratively with Michigan Department of Health and Human Services and CDC office of Antimicrobial Stewardship.



OBJECTIVES

- Conduct educational programs for elementary and middle school students to promote the appropriate, safe and effective use of antibiotics using health literacy and a multimodal, team-based approach.
- Reduce antimicrobial resistance throughout the state of Michigan and share antibiotic resistance information nationally.
- Provide a forum for bringing together stakeholders who share the goal of antimicrobial resistance reduction.
- Implement educational interventions designed to help health care providers change the prescribing habits and improve patient communication skills.

Burden of Antibiotic Resistance, United States

Estimated cost of \$30 billion annually
(range \$20-\$35 billion, 2008 dollars)
Additional annual cost of lost productivity:
>\$35 billion

CDC. Antibiotic resistance threats in the United States, 2013.
www.cdc.gov/drugresistance/threat-report-2013/

Estimated minimum number of illnesses and deaths caused annually by antibiotic resistance*:
At least **2,049,442** illnesses,
23,000 deaths

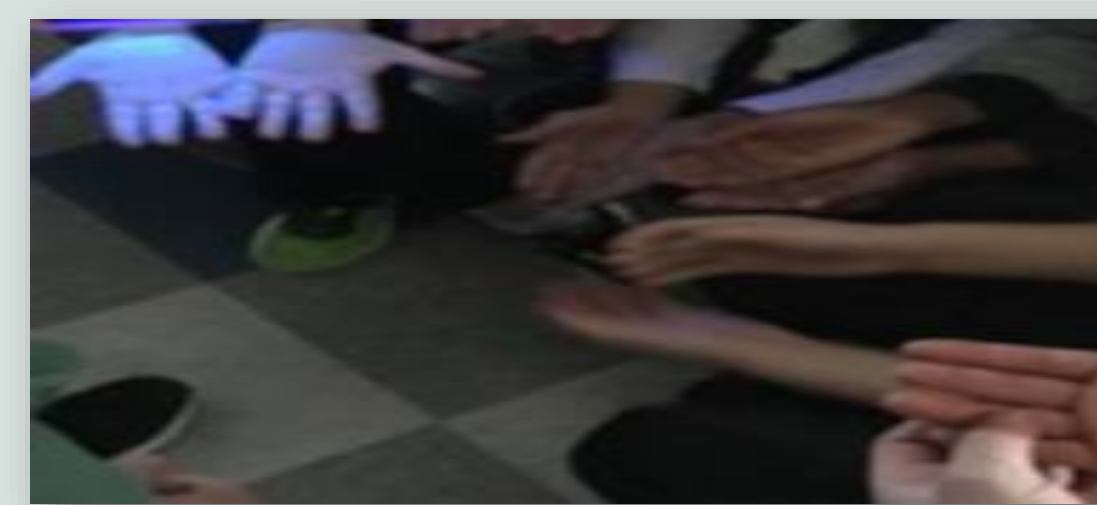
*bacteria and fungus included in this report

PRACTICUM ACTIVITIES

- Developed an online method for administering pre/post-test antibiotic resistance survey using Qualtrics for collating, reporting and analyzing data.
- Worked collaboratively with Wayne State University (WSU) pharmacy students to plan and present antibiotic stewardship program in 1-2 elementary/middle schools in metro-Detroit.
- Provided a qualitative and quantitative analysis of the presentations for antibiotic stewardship program.
- Gathered feedback on educational materials developed by MARR Coalition advisors, elementary/middle school teachers and students.

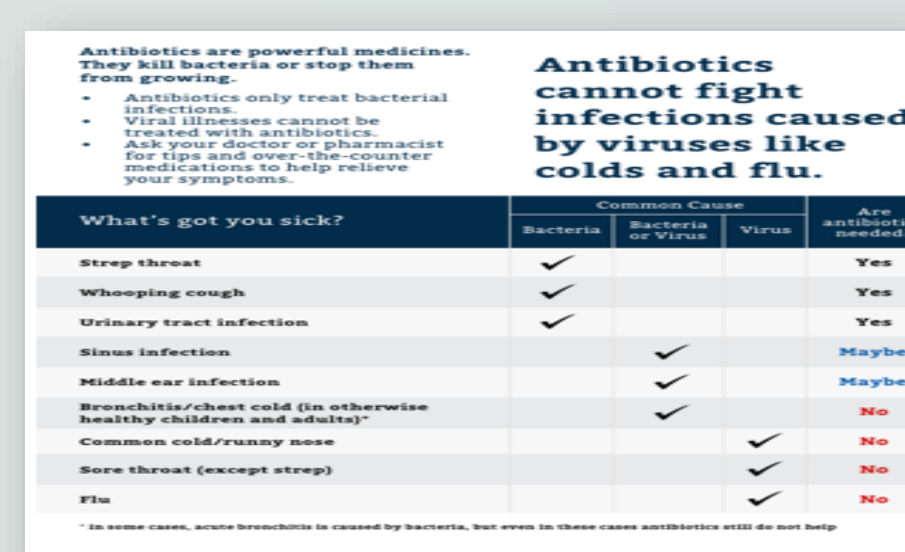
METHODS

- MARR Coalition has developed training program to teach elementary and middle school students about seriousness of antibiotic resistance, antibiotics affecting our microbiome and what they can do to be a better steward of antibiotics.
- The 45-minute program is designed as an introduction to the full antibiotic stewardship lesson plan and is presented by MARR Ambassadors (Wayne State University pharmacy students) and MPH student.
- Participants received 15-minute introductory presentation about different types of germs and awareness about appropriate antibiotic use followed by 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 and Post-tests were conducted to evaluate participant's knowledge of appropriate antibiotic use.
- The full antibiotic stewardship lesson plan was developed in alignment with Next Generation Science Standards and is intended to be conducted by elementary and middle school teachers over a 3-day period.
- The program concluded with sharing feedback among participants.



EDUCATIONAL MATERIALS

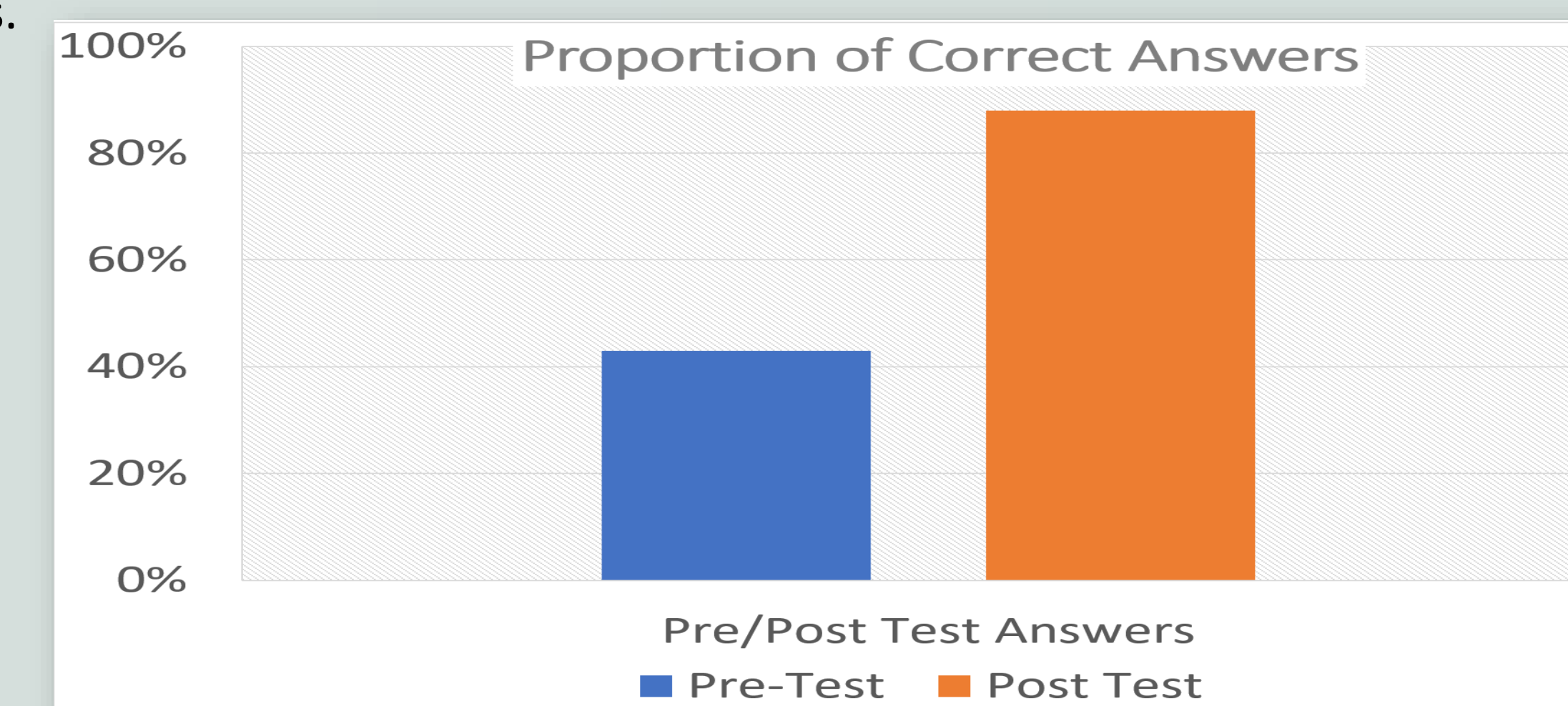
Healthcare and Dental Provider Commitment Posters and brochures are created to increase awareness for antimicrobial resistance and appropriate antibiotic use so we have effective antibiotics for the future use.



RESULTS

- A total of 140 participants/students completed the program:
- Pre-/Post-test results showed that knowledge about antibiotic resistance and appropriate antibiotic use increased significantly (80 %to 90%).
- Majority of participants (90%) who completed the antibiotic stewardship training reported that:
- The training objectives were met, and that training experience would be useful in their future use of antibiotics.
- Participation and interaction were encouraged.
- The content was organized and easy to follow.
- The trainer was well-prepared

Figure: Bar graph presenting proportion of correct answers in the pre- and post-tests.



CONCLUSIONS

- Our multi-disciplinary and interactive training program was well-received and successfully implemented.
- Antibiotic stewardship lesson plan offered the opportunity to train and educate young students and teachers for appropriate use of antibiotics, antibiotic resistance and infection control measures.
- Future plan is to expand this program and create resources on a larger scale based on the experience & feedback from this program.

RECOMMENDATIONS

- Continue providing antibiotic stewardship training to ensure that participants receive an up-to-date information, including recommendations for appropriate antibiotic use.
- Enhance efforts to slow the emergence and spread of resistance with improve tracking of antibiotic use and reporting.
- Create awareness for antibiotic alternatives and promote educational programs for food workers and farmers emphasizing appropriate use of antibiotics in livestock feed, safe contact with animals and proper hand washing to facilitate responsible use of antibiotics in humans and animals.
- Increase partnerships between local health organizations, government agencies and community organizations to promote resistance alertness.
- Encourage global organizations to generate formal commitments that further the progress against antibiotic resistance.



School of Medicine

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

Jihan Aiyash, MPH Candidate

WAYNE STATE UNIVERSITY, DEPARTMENT OF FAMILY MEDICINE & PUBLIC HEALTH SCIENCES



BACKGROUND

- The Fresh Prescription Program (Fresh Rx, for short) is a fresh fruit and vegetable prescription program. Healthcare providers can prescribe a “fresh prescription” to patients who’s health outcomes can be improved greatly, with an uptake of [locally grown] fruits and vegetables.
- The program brings together the healthcare and food systems in the city. Fresh Rx connects the participants of the program to fresh, locally-grown produce providers.
- The participants of the program received a card that can be loaded each week with money to spend at any of our partner markets or stands.
- In addition to providing funds for participants to shop with, participants are also provided with nutrition education on fruits and vegetables each week.



INTRODUCTION

- This year, the Fresh Prescription program partnered with Wayne State University’s Department of Nutrition and Food Science, to create a structured curriculum for participants to follow. In addition to extending the time commitment required from the participants, the program also incorporated *Good Food Ambassadors*, (GFAs) as integral persons of the program.
- GFA’s are being piloted for this year’s Fresh Rx program. There will be GFAs at all of our participating sites. GFAs are college aged students with majors in nutrition or nutrition adjacent majors.
- GFAs will provide basic nutrition education to Fresh Rx Participants.
- Participants are expected to attend 8 market sessions to purchase fruit and vegetables as well as attend a nutrient education session, taught by Good Food Ambassadors.
- The Good Food Ambassadors will follow an 8 week-curriculum, with topics ranging each week.
- At the end of GFA education sessions, participants complete a task demonstrating their new gained knowledge.

METHODS

My purpose within Fresh Rx:

Curriculum Development

- With the Detroit Health Department’s Food Access & Chronic Disease Prevention Manager, and a Nutrition & Food Science PhD Student, we developed a curriculum for the GFAs to be trained on and follow through with during the market.
- The curriculum developed covered the following topics: fats, sugars, proteins, portion control, energy source, storage of produce, and serving sizes.

Implementing and Training of GFAs

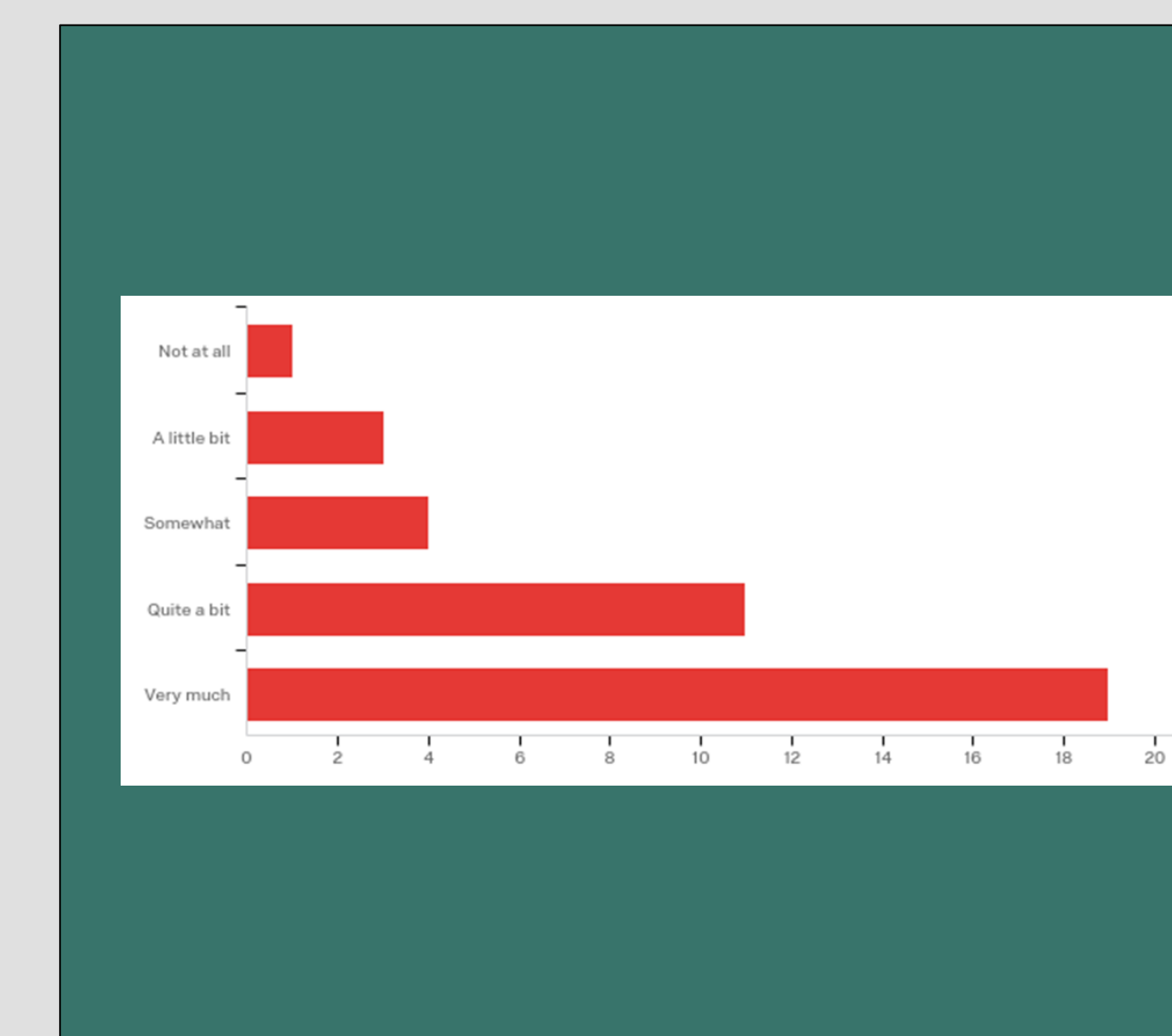
After developing the curriculum, GFAs were trained on the curriculum for a week. We trained them on the topics of the curriculum, as well methods for communicating with participants of the program.

Develop and Pilot an Evaluation of Training for Effectiveness

- I developed a qualtrics survey to collect qualitative data of GFAs experiences at the markets
- Questions asked were about how prepared the GFAs felt, what could be improved on, what is going well
- The surveys were sent weekly to the GFAs and the data is shared with the DHD and WSU-NFS department.

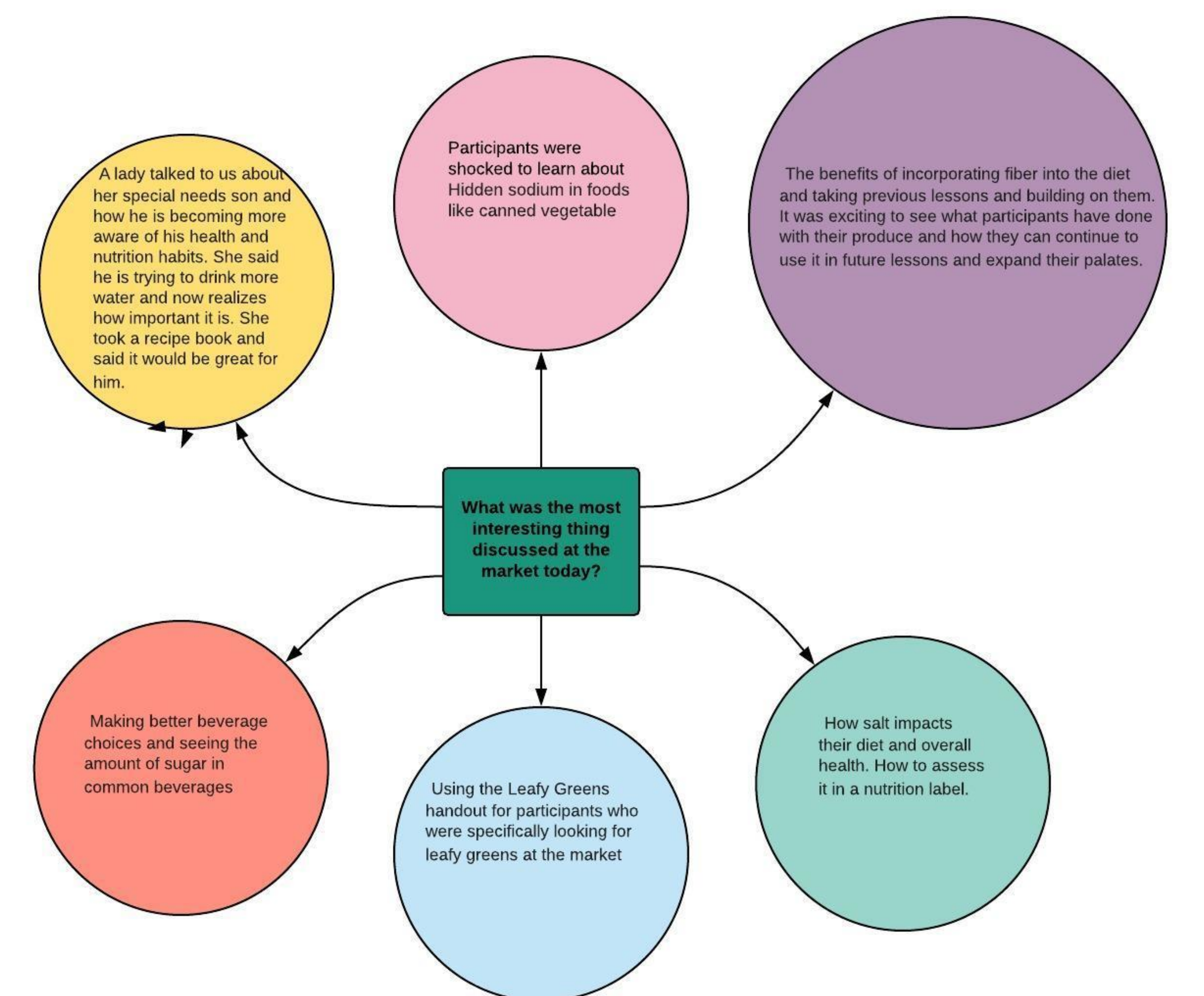
Answer	%	Count
Not at all	2.63%	1
A little bit	7.89%	3
Somewhat	10.53%	4
Quite a bit	28.95%	11
Very much	50.00%	19
Total	100%	38

How prepared did you feel for this week's topic?



RESULTS

- There were six farmers markets and stands where Fresh Rx was implemented this year.
- GFAs were stationed at all 6 sites.
- Every week, the GFAs filled out a survey about their experience and the questions asked about GFA preparedness and Fresh Rx participant learning obstacles and benefits.
- Based on the results from the survey, participants did not have any learning obstacles and learned quite a bit each week.
- The GFAs felt very prepared for the curriculum each week.
- For the farmers markets and stands where the GFAs had excellent turnout of Fresh Rx participants, they felt the training was effective and the curriculum was of value to the participants.
- At farmers markets and stands where there was low or no turnout of Fresh Rx participants, the GFAs felt that their training was helpful in feeling prepared but it was not effective at their site.



RECOMMENDATIONS

- Fresh Rx nutrition education should be available at every farmers market and stand.
- Fresh Rx participants should be able to sign up for their nutrition education sessions at any site that is convenient for them.
- GFAs should be available to drive to any site where they are needed.

WEST NILE VIRUS EDUCATION & PREVENTION PROGRAM



WAYNE STATE
School of Medicine

Netisha Gupta, MD

Master of Public Health Candidate

Department of Family Medicine and Public Health Sciences

Theresa Brestovansky, Wayne County Department of Health, Preceptor

INTRODUCTION

The Health, Veterans and Community Wellness program under the Wayne County department of health was established to accurately assess and address the social determinants of health and community wellness. Additionally, it serves to coordinate and administer services to the residents of the various communities in Wayne county associated with health, educational, youth, senior and veteran social services. The goal of the program is the ultimate elimination of disparities and inequalities that may exist and are related to social and environmental justice by providing an emphasis on education and awareness through various services and programs.

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). The Wayne County health department has devised a summer initiative known as the S.W.A.T (Standing Water Attracts Trouble) program. This program allows for education and prevention pertaining to WNV. It is recommended that individuals with compromised/vulnerable immune systems and those spending greater times outdoors protect themselves. This can be adequately achieved by wearing insect repellent and long sleeve shirts (especially at dawn and dusk).



OBJECTIVES

The objectives of the practicum consisted of:

1. Identifying active summer programs for children aged 5-18 years old that were willing to incorporate a one-time 25 minute interactive presentation on West Nile Virus.
2. Devising a presentation that adequately and concisely covered West Nile Virus history in Michigan and what can be done to hep prevent breeding grounds for infected vectors.
3. Identifying common sites/sources for breeding in communities and how the checklist can be optimized.

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.

S.W.A.T. TEAM

Standing Water Attracts Trouble

The Wayne County S.W.A.T. team is an initiative designed to teach school aged children about mosquito breeding habitats. The program encourages kids to help reduce mosquito populations in their yards and neighborhoods.

You can join the S.W.A.T. team by learning about mosquitoes and getting rid of areas of standing water around your house. If there is water collecting in things like bird baths, pet water bowls, flower pots, tires, or other items; tip them over and clean them on a regular basis to keep mosquitoes from breeding. If you have objects stored in the yard like a wheelbarrow, wading pool, or other toys; flip them over so they can't collect water.

Remember to **Tip it** or **Flip it** because standing water attracts trouble.

West Nile Virus Activity by State - United States, 2018 (as of October 30, 2018)

Legend:
■ WNV human infections*
■ Non-human WNV activity†
■ No WNV activity

*WNV human disease cases or presumptive viremic blood donors. Presumptive viremic blood donors have a positive screening test which has not necessarily been confirmed.
 †WNV/veterinary disease cases, or infections in mosquitoes, birds, or sentinel animals.

INTERVENTION

An interactive presentation was devised that would cater to children aged 5-18 years of age and their parents/care-givers. This presentation addressed the background of WNV, who is at risk and how and what can be done to help eliminate breeding grounds for infected vectors.

A checklist was created and used to assess homes and communities that could potentially be at risk due to various sources of standing water.

EDUCATIONAL MATERIALS:

Mosquitoes and West Nile virus

Widespread in Africa and the Mideast, West Nile virus arrived in the U.S. in 1999 and began to spread.

Transmitted only by insect bite

- 1 Virus survives winter in body of adult Culex mosquito
- 2 Infected mosquito bites bird, infects it
- 3 Other mosquitoes bite bird, become infected
- 4 Infected mosquitoes pass virus to birds, humans or horses, which may develop disease

Virus causes infection
Human, animal immune systems usually destroy virus in bloodstream

Membrane
Brain
Spinal cord

If virus survives in body, it can infect membranes around spinal cord and brain (encephalitis)

Severe cases, deaths
Risk highest for elderly, children and people with impaired immune systems

Symptoms usually mild

- Fever
- Headache
- Body aches
- Skin rash
- Swollen lymph nodes

Virus not known to be transmitted by contact with infected birds

West Nile Virus Transmission Cycle

Reservoir Hosts: Birds
 Insect Vector: Culex Mosquitoes
 Accidental Hosts: People & Animals

Wayne County S.W.A.T. TEAM

Standing Water Attracts Trouble

Which of these do you have at your home? What can you do to get rid of the standing water? Tip it? Flip it? Or Something Else?

PET BOWL	<input type="checkbox"/>
BUCKET OR PAIL	<input type="checkbox"/>
DOWNSPOUT	<input type="checkbox"/>
TARPS	<input type="checkbox"/>
WAGON OR OTHER TOYS	<input type="checkbox"/>
TIRE SWING	<input type="checkbox"/>
BIRDBATH	<input type="checkbox"/>
BLOCKED GUTTERS	<input type="checkbox"/>

EDUCATIONAL MATERIALS:

How do you fight it?
Remember the 4 D's

Drain standing water around your house routinely. Remember to drain tires, cans, flowerpots, clogged gutters, rain barrels, toys and puddles.

Dusk Mosquitoes are most active at dawn and dusk. Stay inside, or take precautions to prevent mosquito bites during these times.

Deet Use insect repellent such as DEET, picaridin or IR3535.

Dusk In long sleeves and pants in areas where mosquitoes are active.

MOSQUITO TRAP

CONCLUSION

Of the children and caregivers who attended presentations one-third reported they were not aware of WNV being a concern in Wayne County, were not aware of sources of standing water and that it serves as a potential breeding ground for mosquitos.

Educational pamphlets regarding WNV prevention were distributed. Public health fieldwork demonstrated the potential for this program to be informative for members of the community.



RECOMMENDATIONS

1. There was a positive response to the S.W.A.T. program initiative, and due to the continual rise of WNV cases every year it would be beneficial to further expand this program.
2. The creation of pre and post presentation surveys would help gauge the effectiveness of the initiative.

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Emergency Preparedness Evaluation in Southeast Michigan



WAYNE STATE
School of Medicine

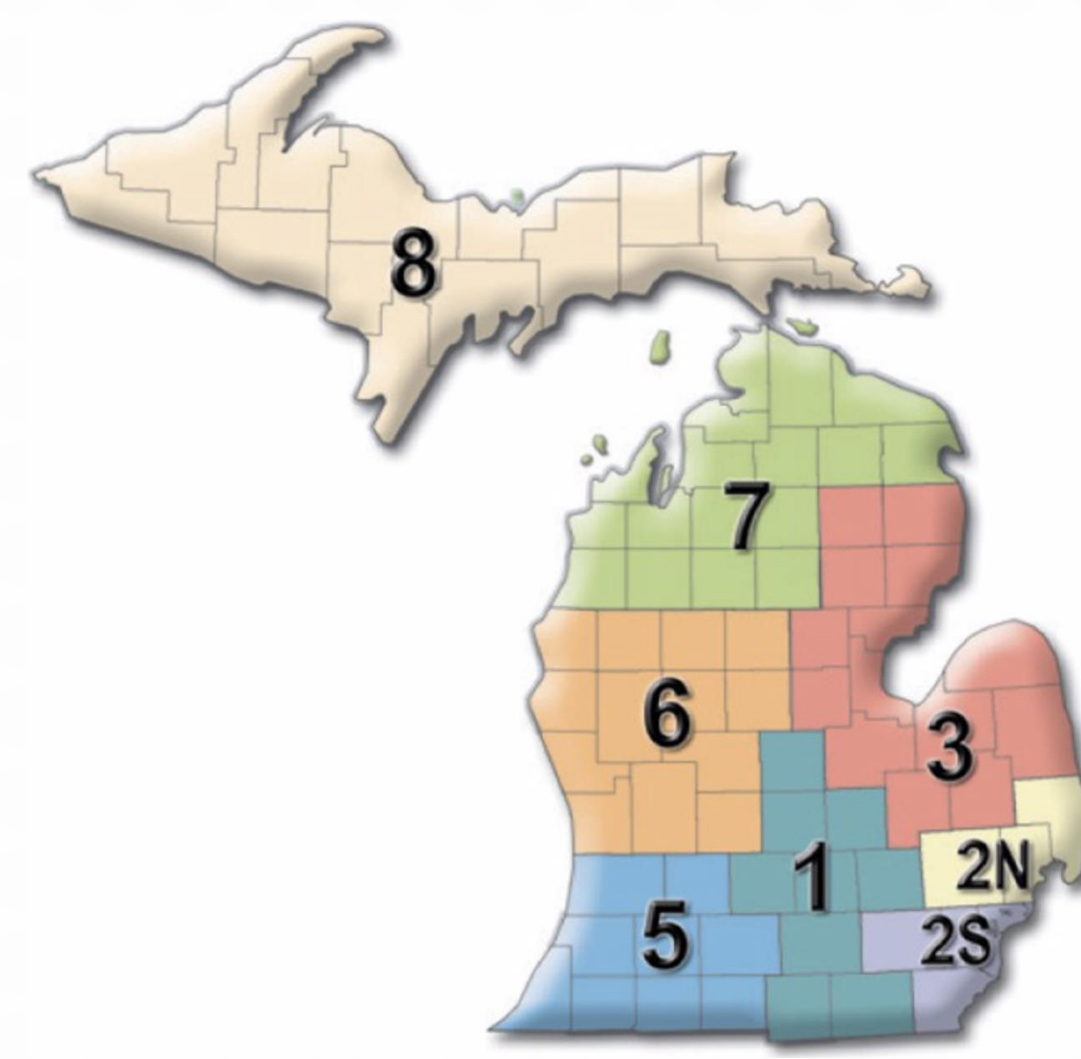
Sarah Parker, MPH Candidate
Preceptor: Ronald Ruffing, MD, MPH, MPS

Wayne State University, Department of Family Medicine & Public Health Sciences

INTRODUCTION

The Region 2 South Healthcare Coalition (R2S) is one of eight healthcare coalitions in the state of Michigan created to ensure statewide readiness and interagency collaboration to respond to public health emergencies. The Children's Hospital of Michigan is an active member of R2S supporting the coalition's mission:

"to facilitate a coordinated health care response to disaster throughout the region by augmenting existing resources, regional and community surveillance, emergency management systems and hospital preparedness".



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.

OBJECTIVES

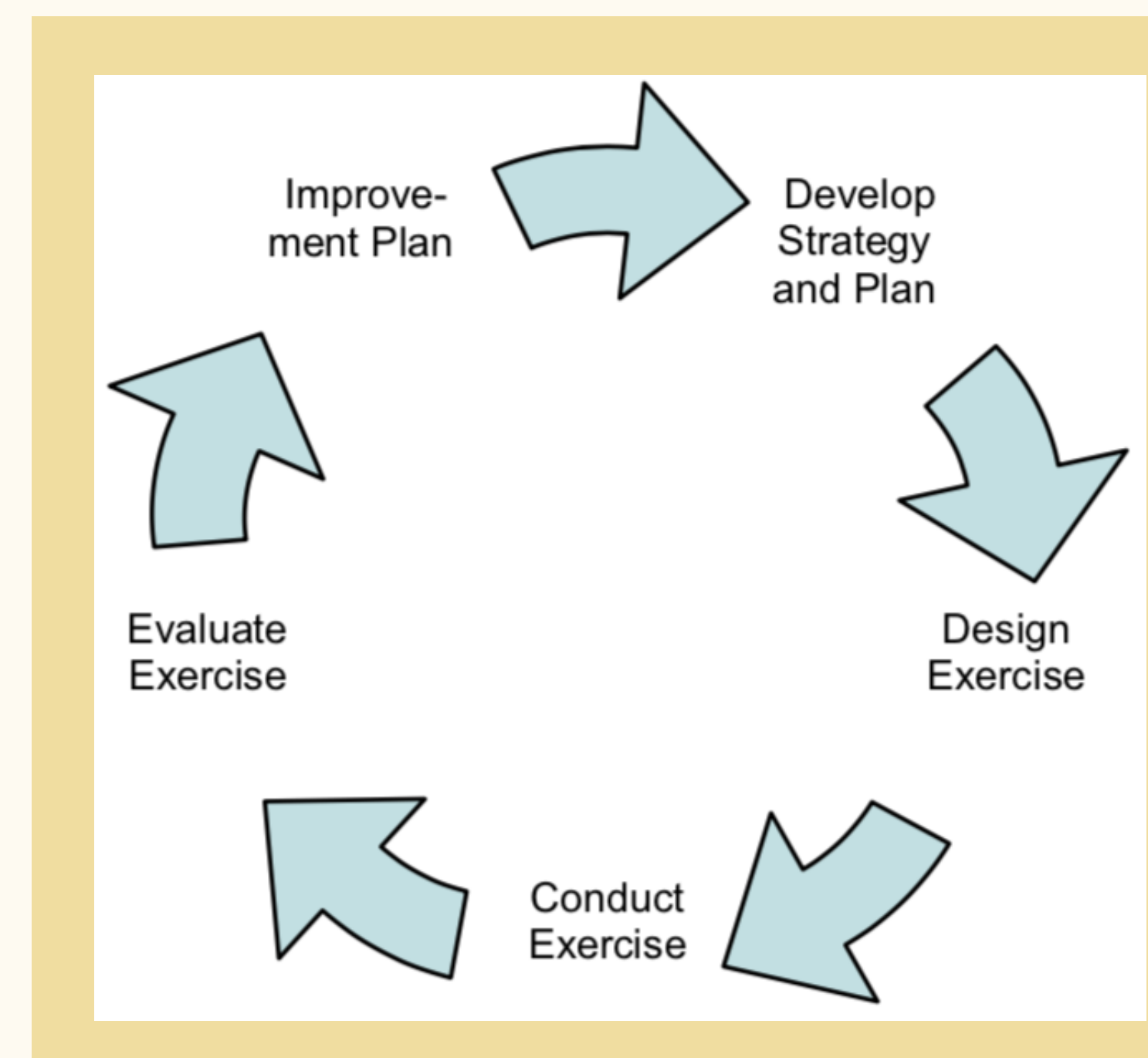
- Understand the fundamental terminology of the Incident Command System (ICS) in preparation for hospital emergency exercise
 - Recognize the dynamic interactions among public health response teams
- Identify regional resources and collaborate with response partners from community organizations
 - Advocate for a diverse public health workforce
 - Participate in community preparedness events and training programs
- Assess incident management function utilizing methods such as debriefing, after-action review, and post-incident analysis

ACTIVITIES

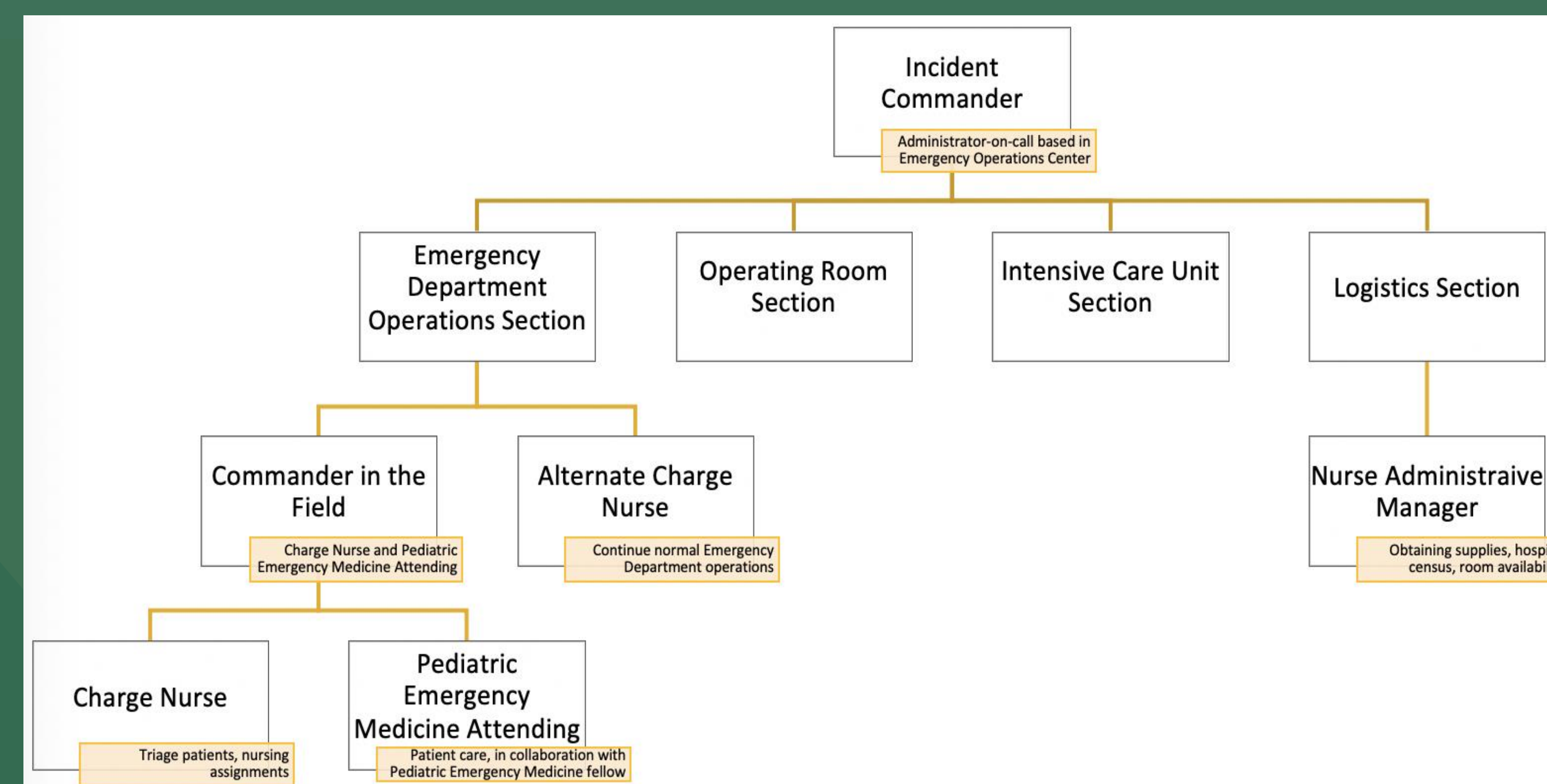
- Independent study courses** – completion of Federal Emergency Management Agency (FEMA) independent study courses related to the Incident Command System and National Incident Management System
- Engagement with local and regional emergency preparedness collaborators** – completion of the Wayne County Community Emergency Response Team Program and attend advisory committee meetings

Planning and execution of a discussion-based tabletop exercise

– used to evaluate the preparedness of the Children's Hospital of Michigan Emergency Department to respond to a disaster



How might the Incident Command System be structured when responding to an influx of patients in the Emergency Department?



Hospital Disaster Exercise Evaluation: Debriefing Module Excerpt

Note: The debriefing session(s) should be recorded by audiotape or scribe. Each item is relevant to every zone involved in the drill. Delete items on decontamination if not relevant to drill. Debriefing participants **should state their zone when responding.**

1. Did you feel you were notified of the disaster in a timely fashion?
2. Did the incident command center work effectively?
3. Did any zone receive incorrect information from the incident command center?
 4. If not correct, what specifics do you recall about incorrect information?
5. Was the information from the incident command center received by other zones in a timely way?
6. Were there problems with information flow within the hospital?

Standardized debriefing and after-action reports play an important role in the hospital preparedness improvement plan

RECOMMENDATIONS

- Expand and strengthen the presence of Wayne State University's Community Emergency Response Team
- Supervisors of the Incident Command should use the correct ICS titles – these are different from every day position titles
- Additional education sessions focused on ICS roles and responsibilities would prove beneficial to a larger staff audience
- Emergency Management team should consider planning an operations-based exercise in the future

PERSONAL FINDINGS

- New understanding of the players involved in emergency preparedness at the local and statewide level
- The ICS structure is different from the daily administrative structure in order to avoid confusion over whom to take direction from
- Emergency preparedness is an ongoing process that requires consistent education, training, and planning

Ria Perez

Preceptor: Amaal Haimout, MPH
Master of Public Health, Public Health Practice

INTRODUCTION

An understanding of the health needs of a community relies on interaction with the stakeholders of that community. This is what my practicum entailed. I conducted a community health needs assessment of the city of Hamtramck. As defined by the CDC, a community health needs assessment (CHNA) “identifies key health needs and issues through systematic, comprehensive data collection and analysis.” My tool for data collection was a survey I developed with members of the Hamtramck community—more specifically, within Wayne County Healthy Communities. Survey data suggest that socioeconomic factors such as poverty and environmental factors such as poor road conditions pose a considerable threat to the health of Hamtramckans.

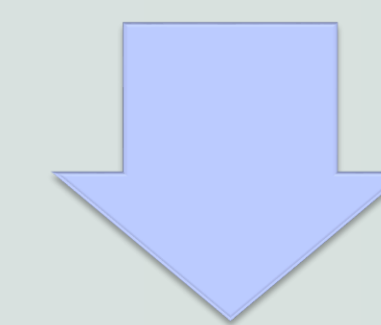
BACKGROUND

Wayne County Health Communities (WCHC) is a federally qualified, accredited clinic offering a variety of health care services. WCHC’S need to understand the health needs of Hamtramck and the desire to meet those needs motivated this community health needs assessment.

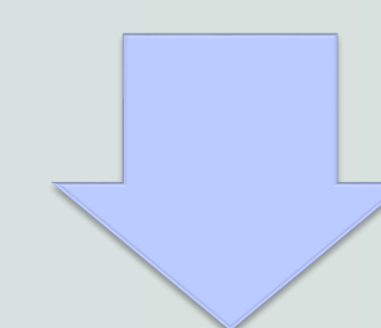


METHODS

Develop a survey asking questions about various aspects of the respondent’s health.

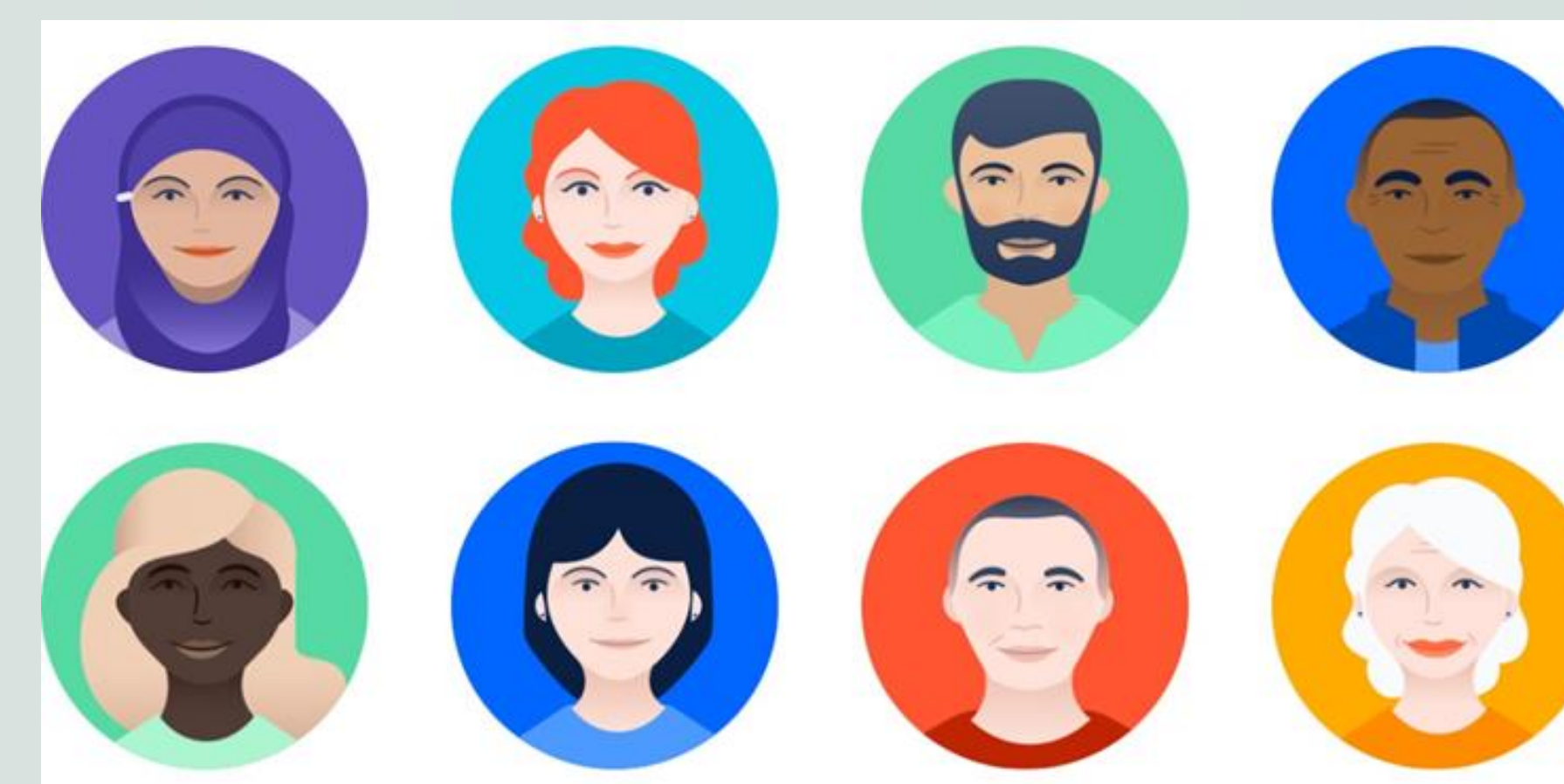


Distribute survey online and to businesses and organizations within Hamtramck.

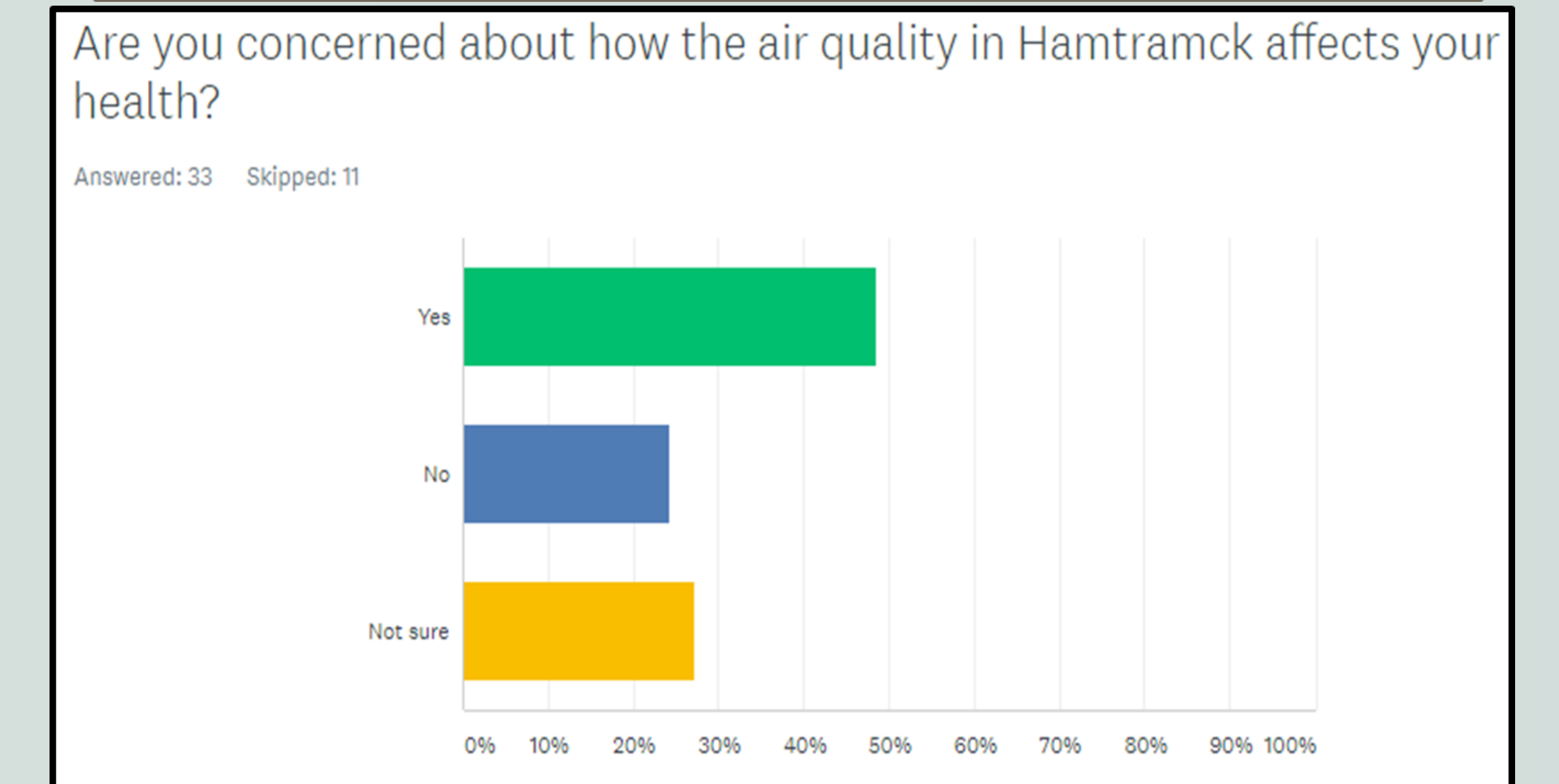
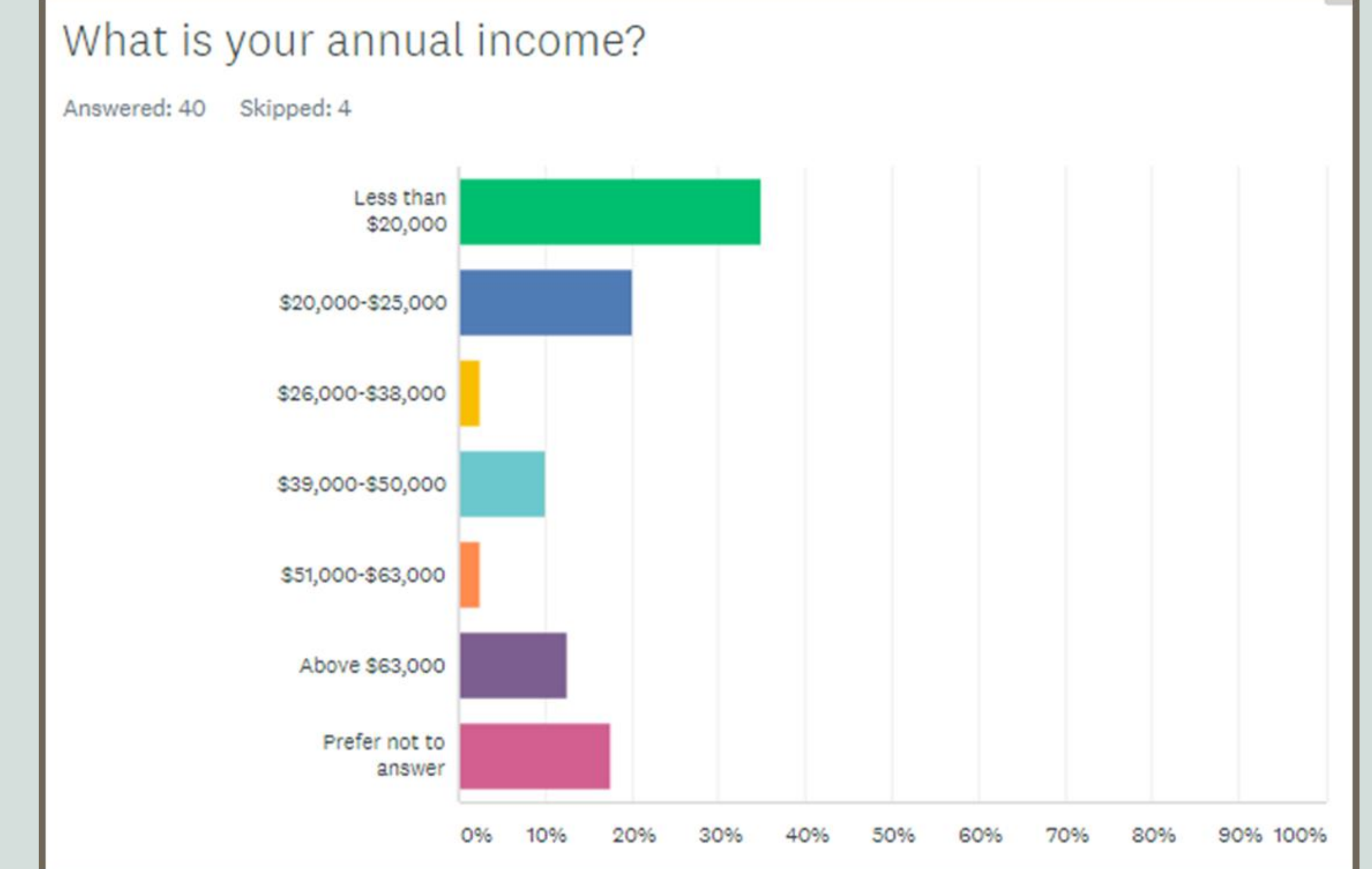


Collect and analyze data to determine what Hamtramck’s prominent health needs are.

Target population of survey: anyone 14 or older who lives, works, and/or goes to school in Hamtramck



RESULTS



CONCLUSIONS

- Findings suggest that poverty, lack of education, unfavorable air quality, unsafe roads/driving, and littering are among the prominent threats to Hamtramck’s health.
- The survey should be translated to Bengali, Arabic, and Polish so that it can be understood and completed by more members of the Hamtramck community.
- The survey should be distributed in Hamtramck high schools so that younger people’s views on the health of their city can be represented.



Introduction of Pre-exposure prophylaxis (PrEP) program at Wayne State University Campus Health Center

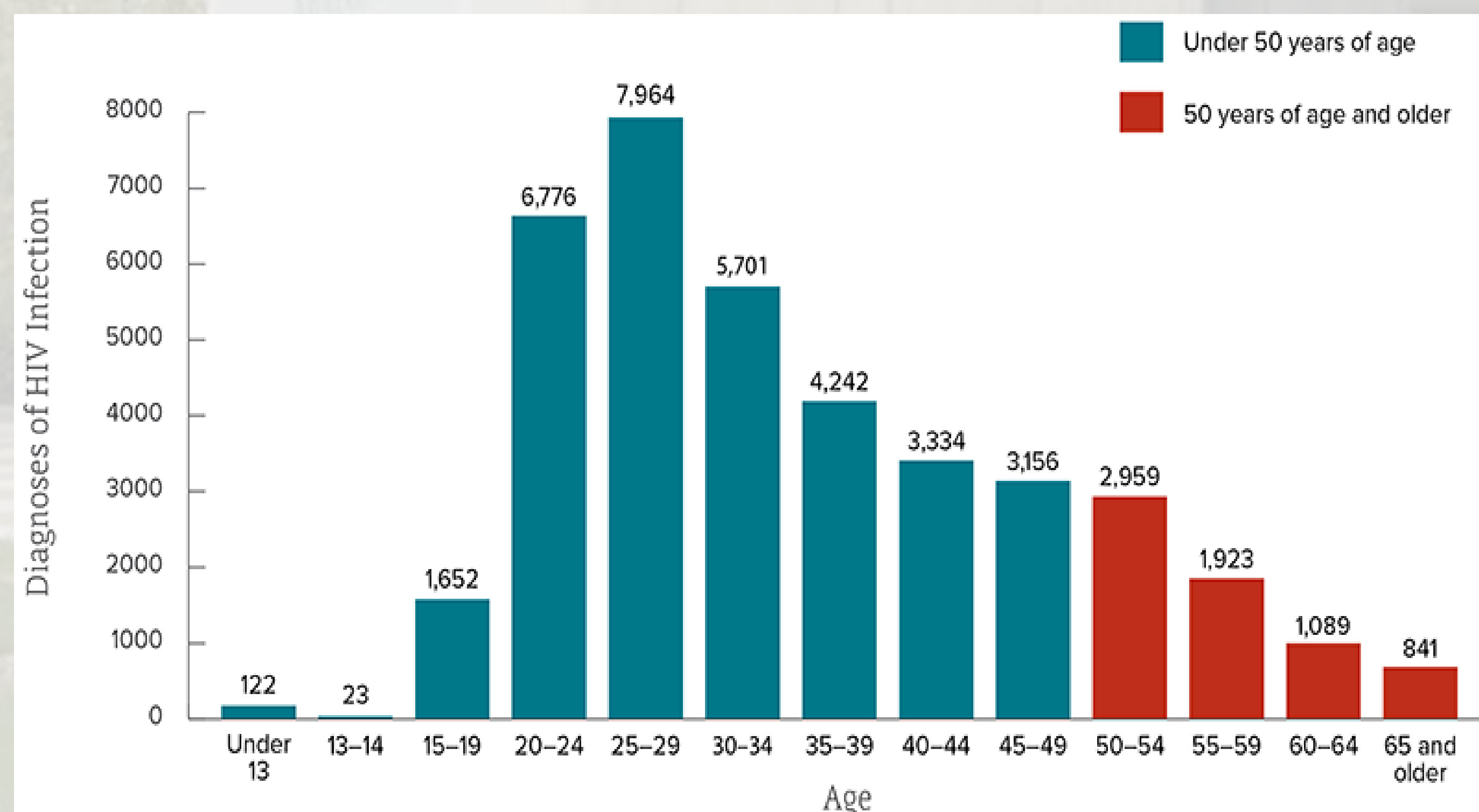
WAYNE STATE UNIVERSITY

Nimrat Kaur Sandhu (MPH student)
Wayne State University School of Medicine
Department of Family Medicine and Public Health



INTRODUCTION

- In 2016, the CDC reported 39,782 new cases of HIV, up from 38,500 cases in 2015 of which 39 percent were youth. PrEP is a new approach to HIV prevention which enables at-risk individuals to protect themselves by taking Truvada, a once-daily pill along with regular condom usage. Previously, potential candidates were referred to nearby centers and were lost to follow-up
- As per the Michigan Department of Health and Human Services, rate of HIV in Detroit is 4 times higher than state average. The heaviest burden of disease is observed in college age individuals between 20-29 years, the rate being 239 cases per 100,000 individuals in comparison to the average of 38 cases per 100,000 for the total population¹.
- The CDC has estimated that approximately 1.2 million people at high-risk for HIV exposure, could potentially benefit from such prevention strategies. However, the growth and usage of PrEP therapy have been variable across different groups².
- In 2016, nearly 93 percent of all PrEP users were male. Women constituted 19 percent of all new HIV cases but comprised only 7 percent of all PrEP users. Individuals between 25- to 44-year of age constituted 64 percent of all users. Nearly 50 percent users resided in just five states: New York, California, Florida, Texas, and Illinois. These findings indicate the presence of a wide gap in care in states such as Michigan and vulnerable populations such as females, LGBTQ individuals and college age youth³
- Daily use of PrEP therapy can lower the risk of transmission of disease from sex by up to 90 percent and from injection drug use by up to 70 percent⁴.



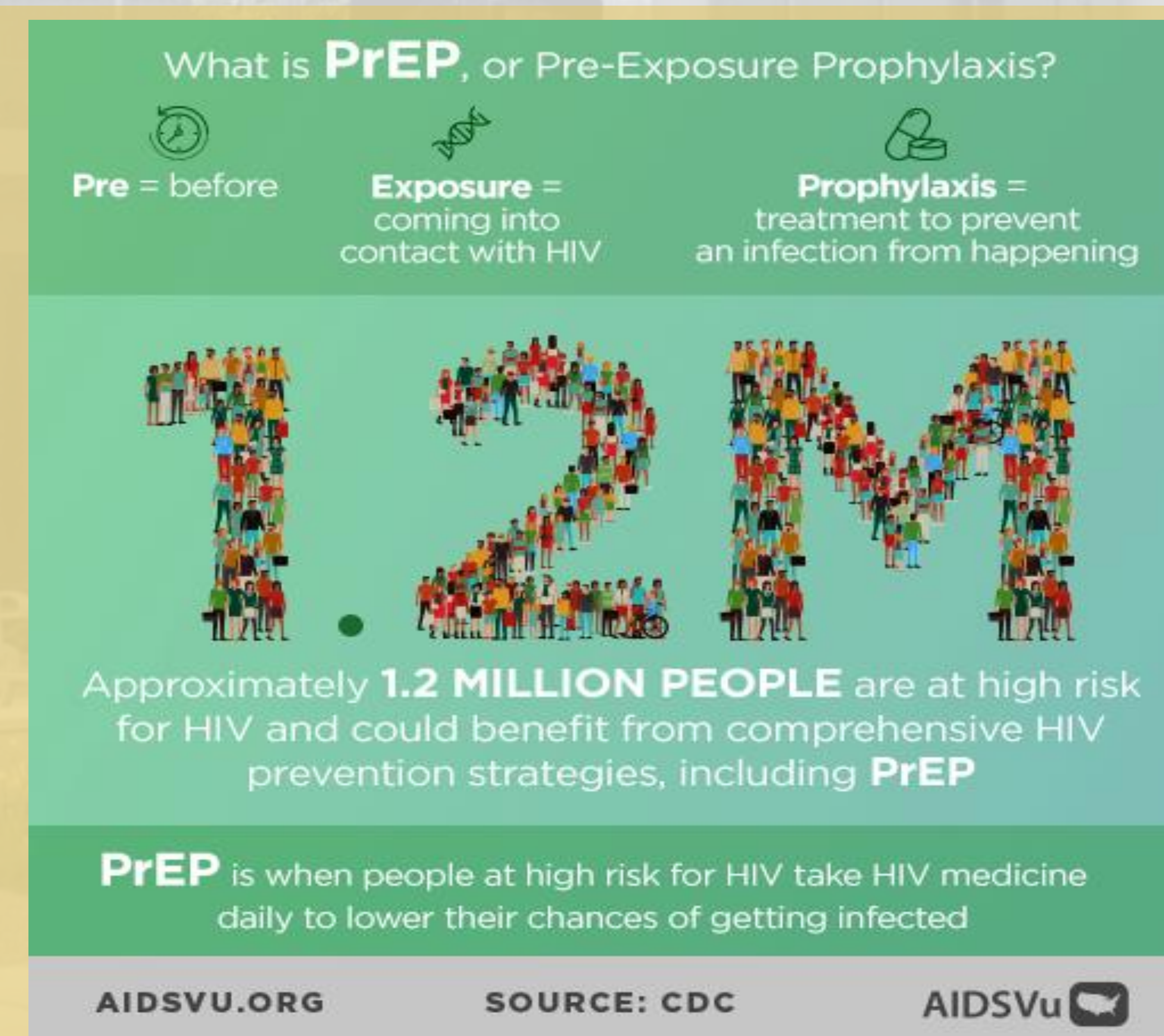
HIV prevalence in the U.S. by age groups

METHODS

An extensive literature review was conducted. Meetings were held with current PrEP providers to learn about program delivery and develop a good protocol. A print binder, digital database and information booklets were prepared. There were four principal objectives in the development and implementation of the PrEP program-

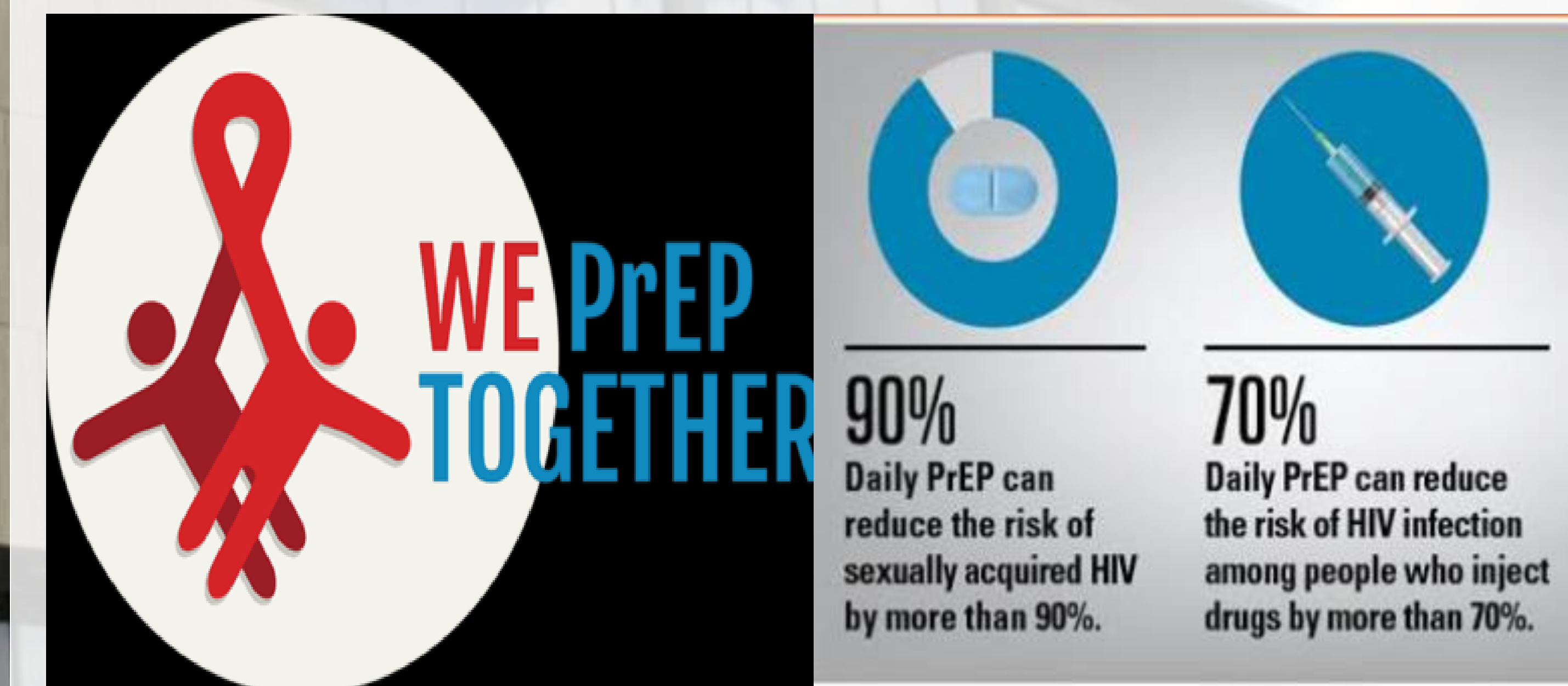
- The first objective** was to establish the need for development of a PrEP program on campus. It was met by preparing a report of HIV occurrence and the need for PrEP therapy.
- The second objective** was to compare different protocols for running such a program and the barriers and facilitators associated with each of them. It was met by preparing a report on the barriers and facilitators by meeting current PrEP providers.
- The third objective** was to identify and provide training to staff at the health center to run the program. It was met by preparing a report of training sessions which need to be held to implement the program.
- The fourth objective** was to obtain information on costs. It was met by preparing a proposal to secure grant funding for the program.

FIGURES



OUTCOMES

- The Campus Health Center has diagnosed several HIV cases in the past few years.
- Many at-risk students were identified as potential candidates for PrEP therapy, some of whom also expressed an interest in the program
- However, due to lack of necessary facilities they had to be referred to nearby centers.
- It was discovered on subsequent visits that many of them either did not report for their appointments due to lack of time and transportation or sometimes the facility did not accept their health insurance
- This situation was worsened by the fear and stigma of being diagnosed with HIV.
- The primary aim of the program is to provide students with a low cost, easily accessible HIV prevention program in a safe setting.



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Site Preceptor- Ms. Ann Rayford (NP)
Chief Nursing Officer
Wayne State University Campus Health Center



Blake Sanford, BS, Fatin Sahhar, MD

Wayne State Univ. SOM, DMC Sinai-Grace Family Med. Residency Program

BACKGROUND

- 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 assignment was to serve as the Research and Quality Improvement Coordinator at the residency, helping residents with research methodology, preparing scholarly presentations, and incorporating public health principles into their projects.
- The city of Detroit has one of the highest obesity rates in the country at 38.1%, as well as a high incidence of sexually transmitted infections (STI's).^{1,2} As a Federally Qualified Health Center in Northwest Detroit, a significant portion of the patient population of this clinic meet criteria for obesity. STI's are commonly treated at the clinic, with patients infrequently returning to receive retesting for confirmation of cure. There have also been concerns about the time it takes for patients to complete their clinic visit and it is suspected that inefficiencies exist in the clinic flow. Faculty and residents at the clinic wanted to perform CQI projects to evaluate and address these issues.

OBJECTIVES

- 1) To assist a senior faculty member in the design of a pre/post survey, Institutional Review Board (IRB) application, and data analysis to assess the impact of a nutrition and obesity management didactic session on resident knowledge of obesity management and how obesity is related to health equity, as well as their perceived preparedness to care for patients experiencing obesity.
- 2) To support 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 placing emphasis on the public health implications of these projects.

METHODS

- For the nutrition and obesity education project, a 16-item pre/post didactic survey was designed. Ten items were multiple choice and true/false questions designed to assess resident knowledge and five were based on a Likert scale in which participants would assess their level of comfort with performing obesity management strategies.
- The STI treatment follow-up project will begin with a retrospective chart review in which researchers will review the charts of all patients tested for STI in the past year to see if they returned for follow-up within two months of initial presentation. For the patient flow project, an anonymous survey will be administered to patients upon presentation to the waiting room. Patients will be asked to record the time when each stage of the clinical encounter occurs.

Table 1. Pre and Post Likert Survey Responses About Resident Preparedness

Question	Pre Score	Post Score	p < 0.05?
How prepared do you feel to recommend specific diets to your obese and overweight patients?	3.3	3.8	No
How prepared do you feel to use motivational interviewing when discussing weight loss with your overweight and obese patients?	3.7	3.7	No
How prepared do you feel to discuss mindful eating techniques with your obese and overweight patients?	3.3	3.9	No
How prepared do you feel to discuss bariatric surgery to your obese and overweight patients?	3.5	3.7	No
How prepared do you feel to manage overweight or obese children?	3.5	3.8	No

Average Score by Topic For Pre and Post Survey on Obesity Management

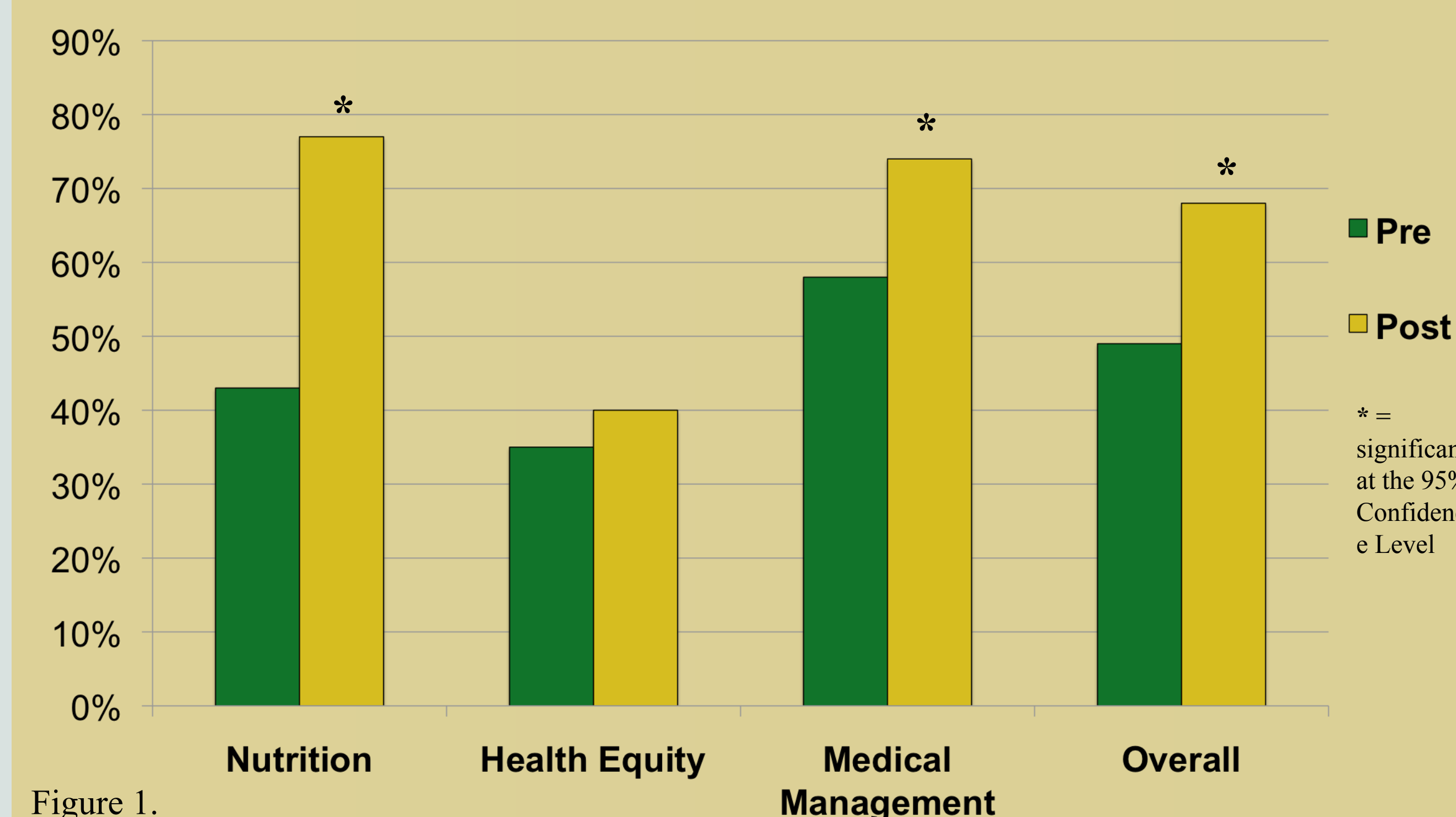


Figure 1.

RESULTS

- Ten residents participated in the obesity didactic session. The average score for the ten-question multiple choice and true/false section of the survey was 49% on the pre survey and 68% on the post (p<0.05). For each of the six questions about how prepared residents feel to manage patients with obesity, no statistically significant difference was noted between the pre and post survey. Of note, only a 10% increase in score for the questions related to obesity and health equity was noted (p<0.05) Interestingly, for the question that asked which percentage of patient encounters residents would discuss weight management for their overweight and obese patients, a slight decrease was seen between the pre and post groups.
- With assistance, residents produced study designs for the STI treatment follow-up project and the clinic flow project. IRB applications have been submitted and are currently in the revision process.

CONCLUSIONS

- For the obesity education survey project, while scores from the pre test to the post test improved, residents did not score highly on either test and did not feel more prepared to manage patients with obesity after the didactic session, suggesting that a single didactic session may not fully address the learning needs of the residents. A longitudinal curriculum on obesity management that spans all three years of residency may be beneficial in reinforcing concepts and providing residents with more interactive learning opportunities to learn how to more effectively counsel patients on nutrition and weight management.
- The residency program seemed to benefit from having someone dedicated solely to research and CQI projects and should consider employing a part-time research coordinator year-round.

References

1. Medical Equity. (2015). *The Obesity Epidemic and its Effect on Detroit Residents*. Last Updated. 2015. Available at: <https://www.emedeq.org/food-disparities-blog/2015/11/24/the-obesity-epidemic-and-its-effect-on-detroit-residents>. Accessed 11/05/2018.
2. Dalbey, Beth. *Record-High STD Rates in US: Where Metro Detroit Ranks*. Patch. Last Updated Oct 21, 2016. Available at: <https://patch.com/michigan/detroit/record-high-std-rates-us-where-metro-detroit-ranks> Accessed 11/15/2018.

Looking Beyond the Individual's Acute Violence-Related Injury



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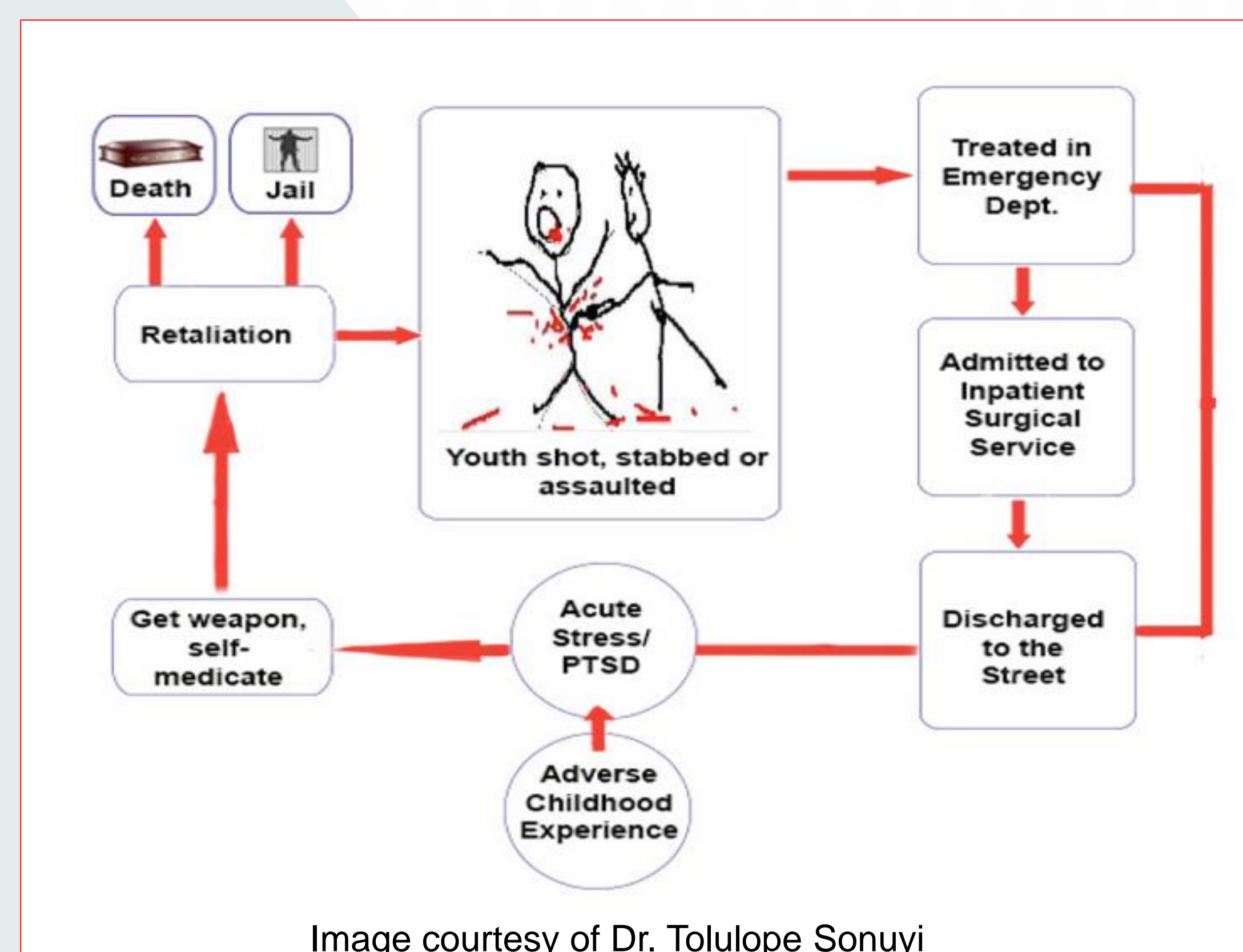
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INTRODUCTION

Detroit Life Is Valuable Everyday (DLIVE)

is a hospital-based violence intervention program started by Dr. Tolulope Sonuyi in 2016. 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.

Prior injury has been found to be a predictor of future violent injury and death



Interpersonal violence is a significant cause of morbidity and mortality in the United States (US). The Centers for Disease Control and Prevention lists homicide as the third leading cause of death among 15-to-34-years age group in the US and the number one cause in Michigan. Violence-related injury deaths in Detroit mirror these statistics.

ACTIVITIES AND OUTCOMES

Assessment of Social Determinants of Trauma for DLIVE participants –

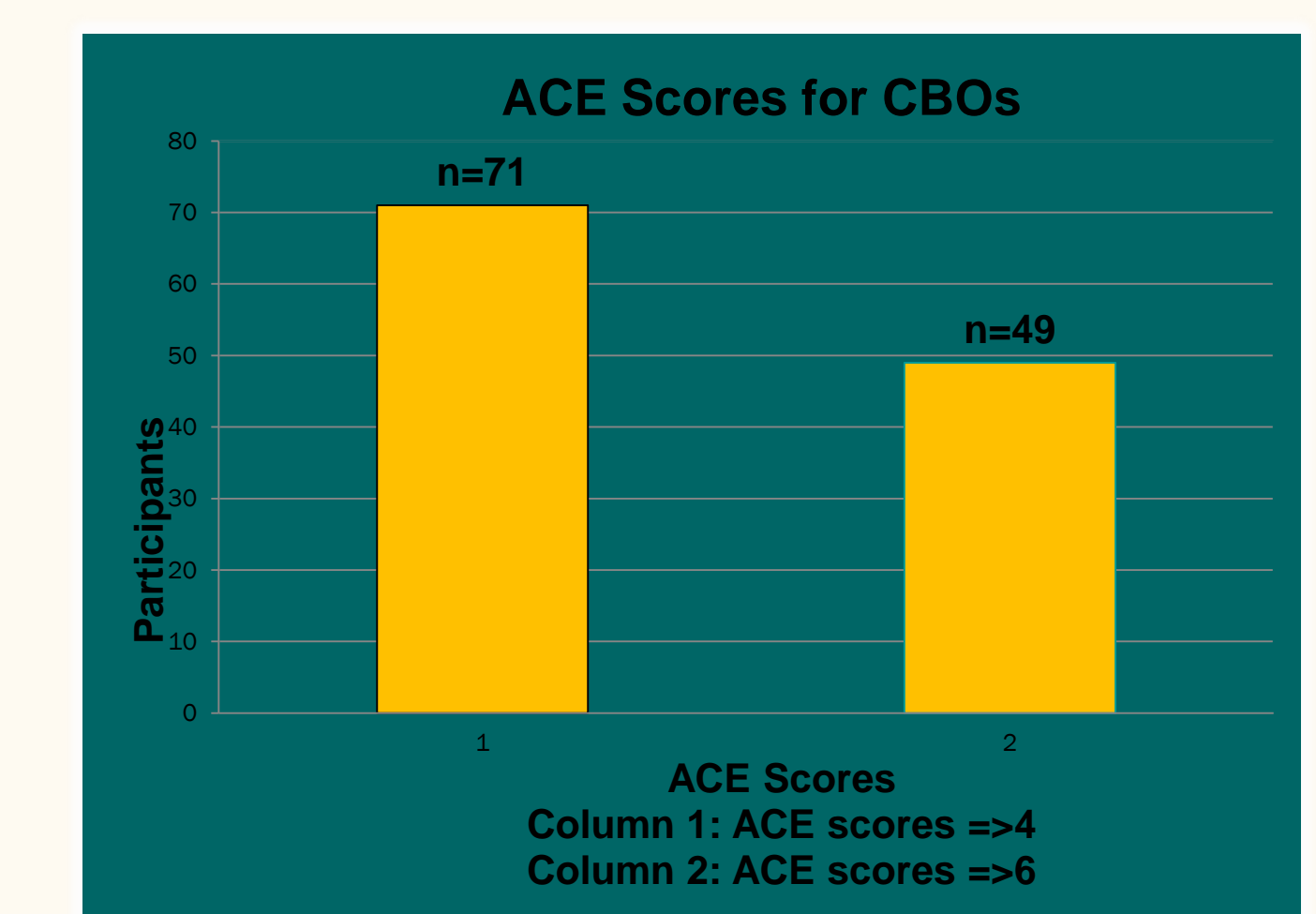
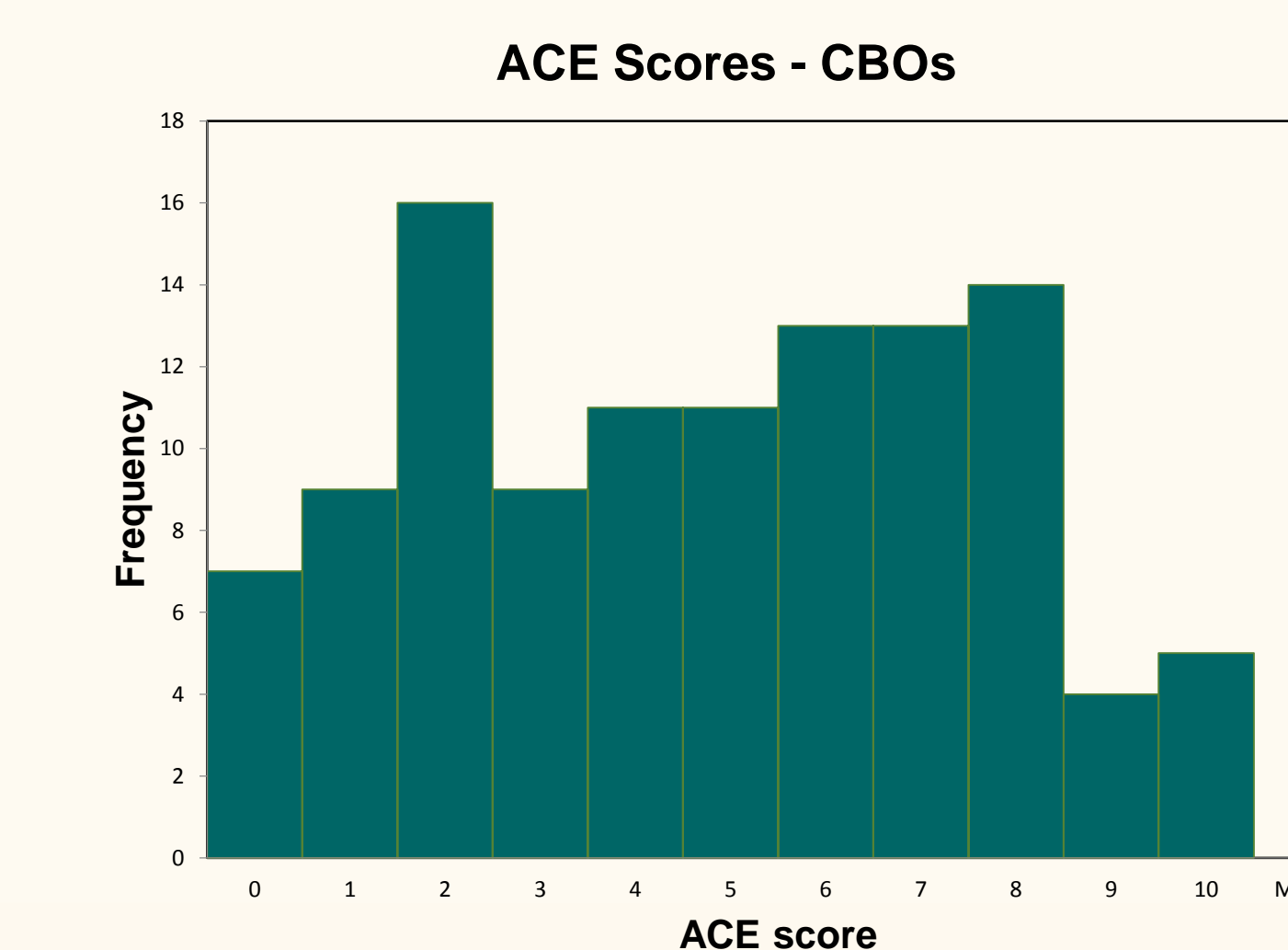
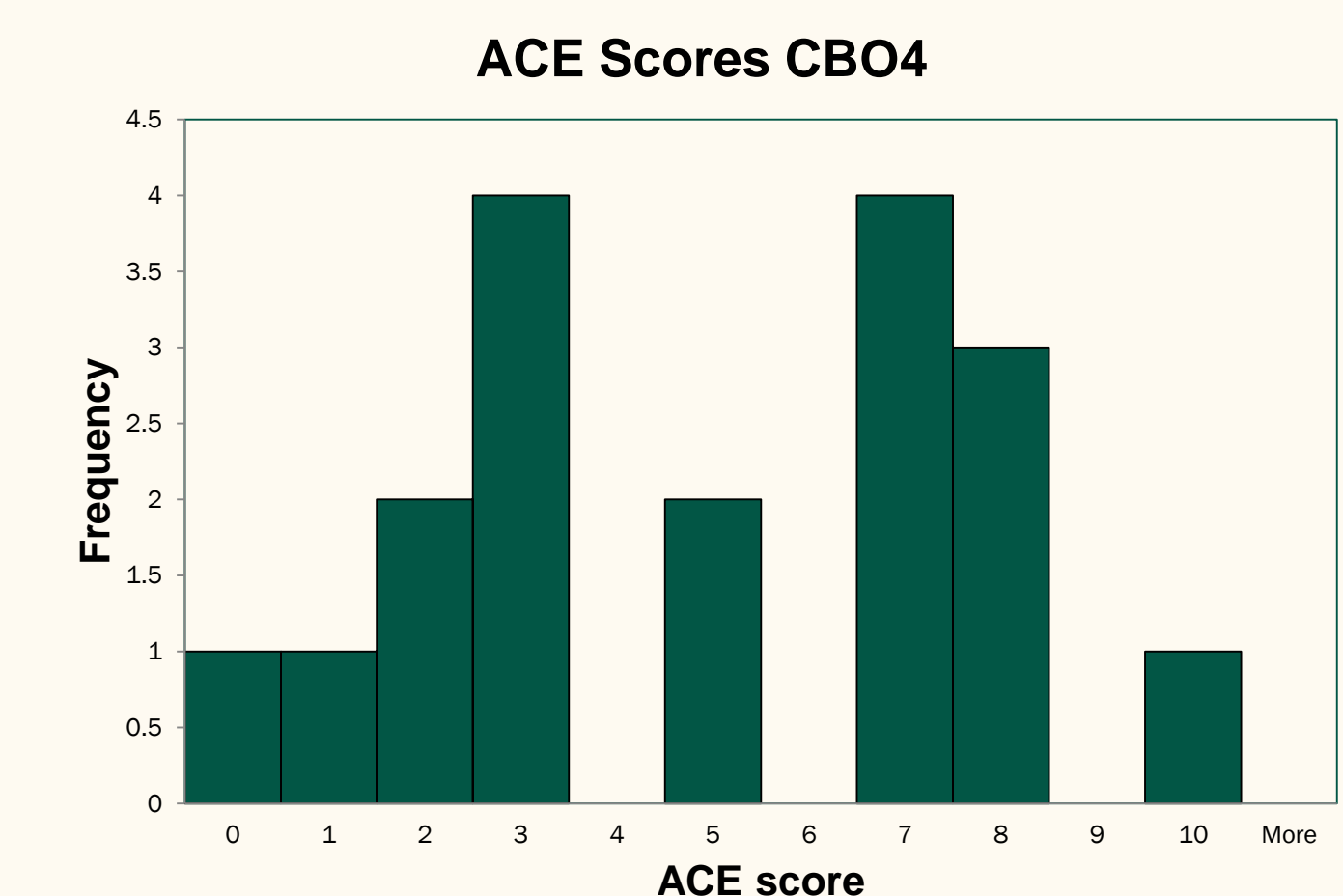
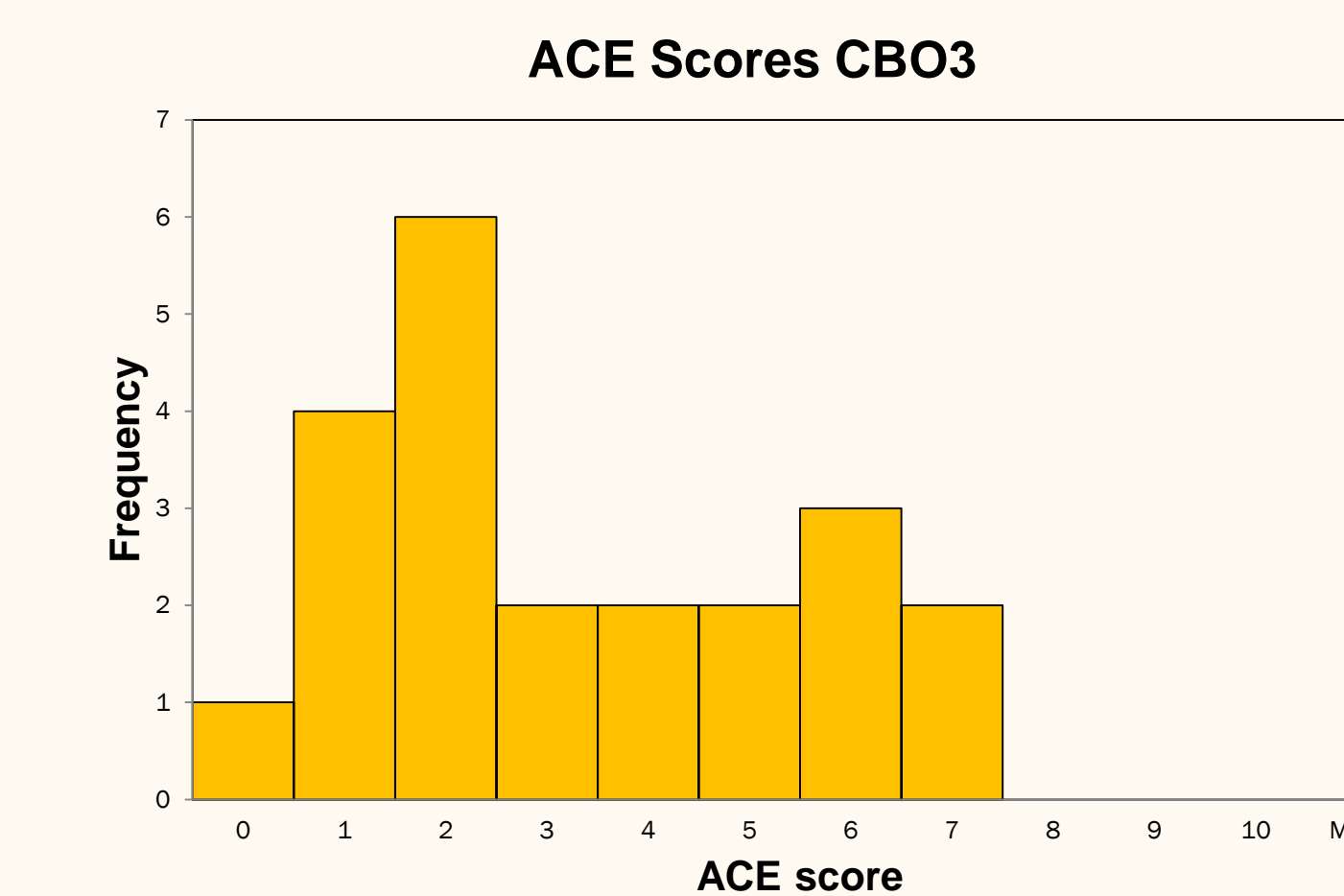
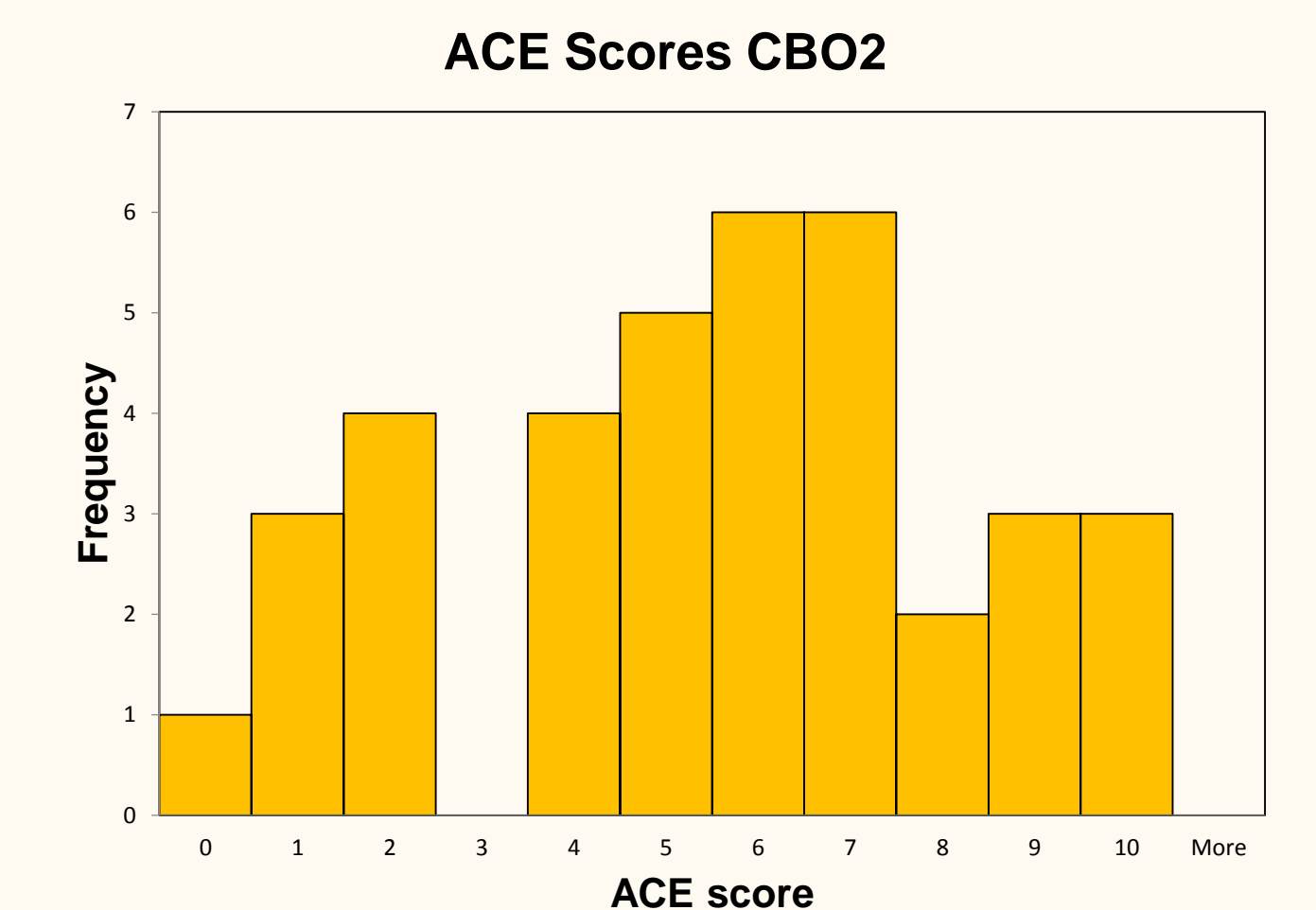
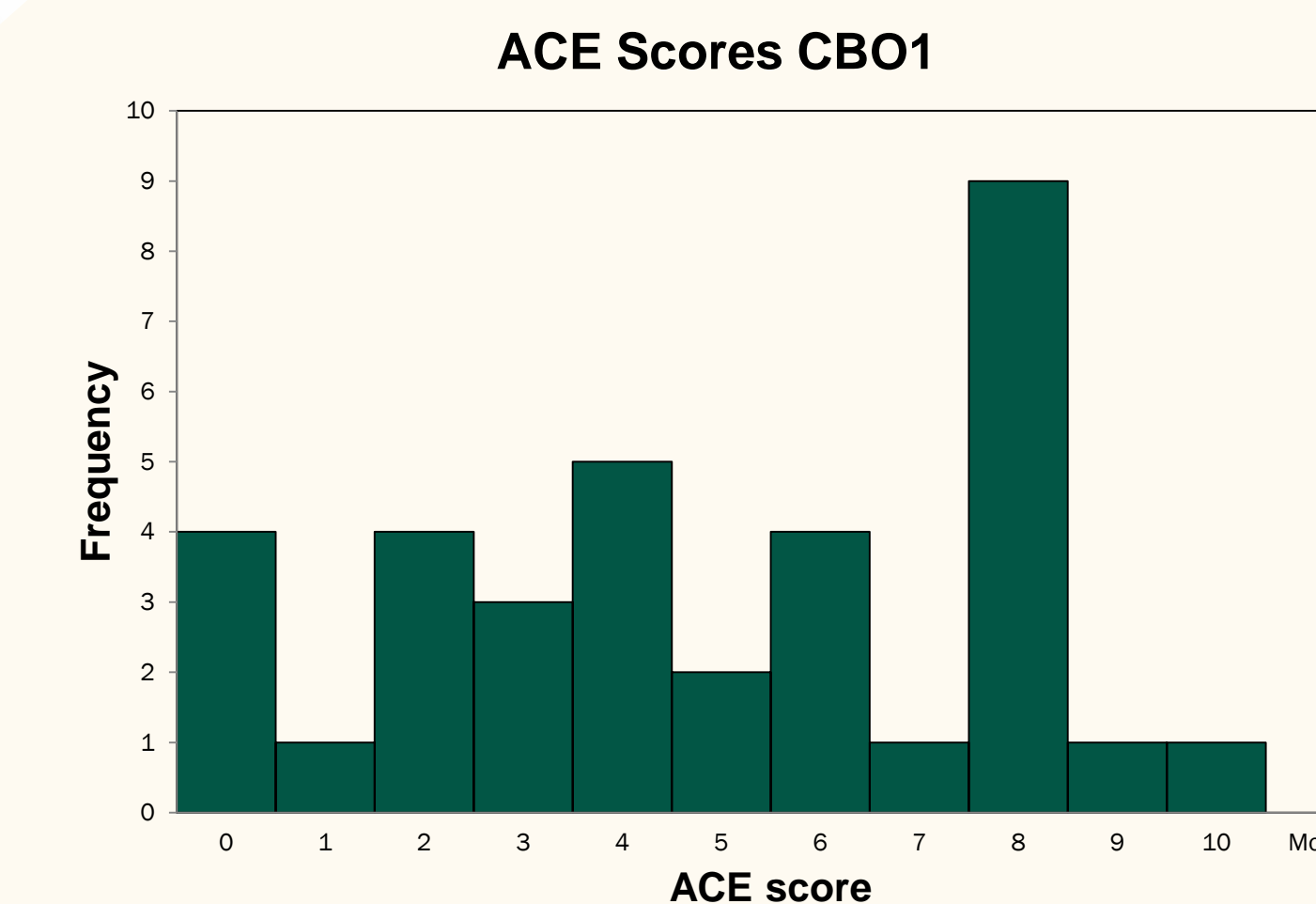
Conducted a review of the drivers of trauma and barriers that prevented participants from living a healthy and socially productive life. These were education opportunities, housing, employment, mental health resources, transportation, among others. However, the recurring theme was: **violence is the norm in participants' environment.**

ACE Scores Survey Data Analysis –

The Adverse Childhood Experience (ACE) Questionnaire is a 10-item self-report measure used to identify childhood experiences of abuse and neglect. Higher scores on the ACE have been shown to be correlated with an increased chance of experiencing violence or trauma. ACE scores were analyzed for four community-based organizations (CBO). Both positive and negative childhood experiences have an impact on violence victimization and perpetration in future, so it is important to identify which experiences are the ones affecting the individual. DLIVE program has used ACEs to explain behaviors related to abuse in participants and in turn offer behavioral modifications to prevent their children from having a higher ACE score.

Research Proposal for a Retrospective Review –

Conducted a literature review and obtained data to provide statistics on violence-related deaths for a research proposal. The objective of the proposal is to conduct a retrospective review to determine re-injury rates for previously injured patients.



OBJECTIVES

- To gain an understanding of factors that put individuals in a vulnerable position to be either a victim of violence or perpetrator of violence.
- To assess social determinants of trauma and the barriers DLIVE participants face.

PERSONAL FINDINGS

Greater understanding of how individuals interact with their environments both immediate and remote and how this transaction between individuals and their environment can be improved.