At the ADA, I participated in several workshops and health fairs around the five boroughs of NYC. These workshops and health fairs allowed me to hone my communication skills while giving me the opportunity to apply some of the scientific knowledge about the pathology of diabetes that I learned to some extent in my first year as a medical student. In addition, I was able to get a better understanding of the various ways the ADA tries to spread vital information that pertains to diabetes prevention as well as ways in which it tries to reach out to people who already suffer from the disease. In my brief time at the ADA, I also participated in organizing various community outreach events, which the ADA uses to not only spread the knowledge about diabetes prevention and management but to get people to come and work together to help in the fight against the disease. After attending, one of the events I noticed the family-oriented atmosphere that it sort of encourages. Indeed, many of these events serve as a means by which the ADA extends its network of community service which gives people the opportunity to serve others. I can say that after these events I was left inspired and amazed at the efforts people made in order to assist the less fortunate citizens of their communities.

The experience I had allowed me to grow in many ways. First, it allowed me to learn the nuances of working with people of different backgrounds and or works of life. It exposed me to the public health sector which is often times overlooked in the ever growing world of medicine. In addition, as a result of my experiences, I became more aware of the importance of working with humility and compassion in order to provide the best possible care to patients and to whomever is in severe need of assistance. Furthermore, it left with a deeper understanding of the geographical aspects of NYC and how it affects the delivery of quality health care. Indeed, it was a fulfilling experience that I will always cherish for years to come as a future physician.

Most importantly, I got to see first hand some of the economical, social, and political challenges that the ADA has to overcome in order to assist people living with diabetes while enforcing prevention measures that serve to decrease the enormous financial burden that this chronic disease has on the U.S. health care system. The interplay between social issues and the ability to make quality healthcare available to people in dire need of it seemed to be the main problems it strives to overcome. Indeed, service learning experiences such as this can allow aspiring physicians such as me to become more cognizant of the complex social, political, and economical issues at play in the world of medicine and perhaps allow us to find ways to improve the status quo in the ensuing years to come.
The 4-week service-learning program at Open Door Family Medical Center encapsulated a variety of experiences and activities, all of which came together to give me a solid understanding of what it means to provide a holistic health care experience.

The major aspects of the program included:
- Learning (Physician and Patient Advocate shadowing)
- Service (WIC office)
- Research (Diabetes Mellitus II and Personal Control)

Most importantly, the community health focus at Open Door taught me that physicians are not the only professionals that can improve a person’s health; in fact, we may often need a diverse team of providers to care for each patient and give them the best outcome possible.
The White Plains Youth Bureau held a 6-week summer camp for 25 middle school students, focusing on STEM (Science, Technology, Engineering, and Mathematics) educational activities. I participated in a service learning experience focused on health education for these campers. The thing that made my summer a lot of fun, as well as a successful educational campaign, was being a counselor to the campers throughout the summer!

“Education is not the filling of a pail, but the lighting of a fire”
– William Butler Yeats

In this unfamiliar environment, I used the first week to get to know the campers and counselors, before endeavoring to teach these health topics. Having never taught a class (of anything) before, I watched closely the other teachers and counselors, observing how they would encourage the campers’ responses, whatever their creative minds had come up with. I started to realize my goal wasn’t to teach the campers information, but rather to encourage critical, creative thinking in a non-judgmental atmosphere.

In teaching these 3 specific topics, I feel that this attitude was paramount. These adolescents will soon be making their own judgements and decisions about drugs and alcohol. I wanted to be a source of information they could rely on, without feeling judged or encouraged to believe certain ways. This way, when the time comes to make important personal decisions, these campers will be able to make educated, critical decisions about their health and habits.

My educational program consisted of short lessons throughout 4 weeks of camp. I focused on the 3 topics - alcohol, marijuana, and tobacco/smoking. Throughout discussing these health topics with the campers, I discovered that they were very interested in learning more, particularly during the smoking and alcohol lessons. Being two of the most commonly used and abused substances, I hope to have made a positive impact in their lives, helping to elicit critical thinking built on correct information for their personal decisions about using these drugs in their future.
My Service Learning Experience at the Neighborhood Health Center
NYMC Family Medicine Residency Program at Hoboken University Medical Center
Nicole Lomotan

**What I did:**

In addition to shadowing various family medicine physicians, I made an effort to serve the needs of the clinic by working on a project to help increase the rate of HPV vaccination. I created a survey to assess the HPV vaccination process at the clinic and the perceived barriers to vaccination. A total of 11 nurses and 24 physicians at the clinic were surveyed.

According to CDC data, four out of ten adolescent girls and six out of ten adolescent boys haven’t started the HPV vaccine series, and are vulnerable to cancers caused by HPV infections.

I compared the survey results to the CDC recommendations for improving vaccination rates and provided suggestions on how the clinic could improve their rate of HPV vaccination.

**What I learned:**

The four weeks I spent working at the Neighborhood Health Center were incredibly meaningful. I realized that while physicians and staff at community health centers endeavor to increase access to health care, there are many barriers that often prevent them from doing so. In addition to caring for the health of each individual patient, physicians must also be advocates for their patients and evaluate the issues that affect them on a community-wide basis. When I become a physician in the future, I will make it a priority to not only treat each individual patient case by case, but also to address the prevalent issues in my patient population in order to help break down those barriers and improve the quality of care that my patients receive.

*Service learning taught me to ask and then helped me answer the question, “What patient care goals aren’t being met and how can this be improved?”*
I believe that summer projects, as all experiences, should foster personal growth beyond objective project results. This summer experience has allowed me to grow personally and professionally. I gained a renewed appreciation of the other health professionals, an expanded appreciation of the resources available to people, and a deeper appreciation for the public health system’s impact on society. As a result of this experience I realized the importance of making it my business to be aware of some of the resources available to the public in my area of practice.

We take so much for granted, but our standards of living largely depend upon the public sanitation and public health initiatives. From the early intervention program, to the lead program, to the environmental surveillance program, to the chronic and communicable disease prevention programs, the Westchester County Department of Health plays a vital role in the health of the public. It plays a role that we as individual physicians cannot accomplish. This summer program was beneficial for me as a future physician with interests in pediatrics, family medicine, and public health.

I provided support to the intake department of the Early Intervention Program. This included general office duties, filling out the referral forms with parents of children who are suspected of developmental delay and processing the referrals, providing support to other departments of the Early Intervention Program (such as Medicaid and transportation), and going through some of the departmental paperwork to provide statistical analyses and reports. This included providing them with baseline data about their referral sources (which will impact the institution of a child-find program) as well as providing them with Medicaid compliance data that they will use in their future agency training.

Although this predominantly nonclinical office experience was completely different from what we are used to in medical school, it reinforced some of the knowledge and skills taught during the first year of medical school such as child development, newborn screenings, and communication skills. It was nice to be able to assist worried parents in their effort to secure help for their children.
The summer provided countless patients with the ability to interact with medical students going into their second year. Many were candid with regards to their medical concerns and their past experiences at the Family Health Center (FHC). Another medical student and I internalized these concerns and desires during a presentation that focused on improving continuity of care at the FHC. We collected over 100 surveys in a 10 day span that assessed primary care provider (PCP) familiarity, appointment availability, and the length of receiving services at the clinic. To improve community relations and continuity of care, we made suggestions to the residents about distributing business cards after each visit, printing out treatment plans after each visit, and reminding patients that they can schedule an appointment with the same PCP.

The community was also exposed to new technology in the exam rooms since our surveys were conducted using tablets. This was the first survey or questionnaire conducted on an online platform (fluidsurveys). So patients were able to see the integration of new technology with the traditional patient care.

Overall, I hope that these patients were able to see that the new wave of doctors will not forget about the importance of conversations and reflections in exam rooms, even in the face of the endless integration of technology during patient encounters.
**Direct Service in the Community**

- **Community opioid overdose prevention training**
  - Provided training to community members on the use of nasal Naloxone in opioid overdose reversal
- Disseminated public health information to combat rising opioid overdose death rates

- **Health-Smart Behavior Workshop at Theodore D. Young Community Center**
  - Participated in evidence-based workshop aimed at teaching health-smart behaviors
  - Promotion of nutrition education and obesity prevention

**Indirect Service in the Community**

- **Coalition-building background research**
  - Interviewed over 30 coalitions operating in Westchester County to identify:
    - current health-related coalition projects
    - ways in which coalitions operate to improve identified health issues
    - challenges coalitions face in tackling public health concerns
  - Laid the groundwork for the Westchester County Department of Health to build a county-wide health coalition and utilize collective impact strategies to improve its mission of health promotion within our community

- **Health messaging to provide public with pertinent health information**
  - Breastfeeding facts and resources
  - Water fluoridation information

**Reflections:**

- The opportunity to provide service directly within the community, in addition to conducting behind the scenes public health work, gave me a unique perspective on the intricate connection between individual health and the health of the community at large

- I gained an immense appreciation for the wide range of responsibilities of the Health Department, which contribute to establishing and maintaining environmental health and disease prevention

- Most importantly, this experience will stay with me during my career as a physician; I will strive to improve individual health while contributing to improvements in the health of the community
BACKGROUND

St. Joseph’s Medical Center is a facility that has served the Yonkers community since 1888. This medical center has traditionally served low-income populations. According to the Community Needs Health Assessment Plan 2013 report, 40% of patients are uninsured. In Yonkers, over 15% of individuals living in the SJMC primary service area report income below the poverty level.

Saint Joseph's Family Health Center (FHC) is an outpatient facility that was certified in May 2014 as a Level 3 Patient Centered Medical Home (PCMH) by the National Committee for Quality Assurance (NCQA). The FHC notes 30,000 outpatient visits a year and has an academic affiliation with New York Medical College housing a Family Medicine Residency Program, as well as third year medical clerkship students and second year summer research medical students. The FHC has approximately 75 staff including RNs, LPNs, Certified Nursing Assistants (CNA), Patient Care representatives, phlebotomists and registrars among other health professionals.

This summer service learning experience consisted of a five-week program, with time being spent both at the medical center and the Family Health Center. Service learning is described as an innovative form of community based education that focuses on a balance between serving the community and meeting defined learning objectives. Its aim is to connect community service with academic coursework. The goal of this summer service learning program was to allow me to gain insight about patients' opinions of the care that they receive at the FHC. Most patients were familiar with the term PCP and felt that it was important to see the same doctor at each visit. However, many patients were unable to identify their PCP and their visit history to the clinic often showed that they saw a number of different physicians in the past. After analyzing our results, it became apparent that there were some barriers to continuity of care: appointment accessibility and a lack of awareness that patients can request appointments with a specific doctor.

PROGRAM DESCRIPTION

This five-week summer program consisted of shadowing residents and attending physicians in both an inpatient and outpatient setting. A performance improvement project was also conducted at the FHC that focused on measures that can be taken to improve continuity of care. Another component of this program was writing weekly reflection papers and attending meetings to reflect upon various aspects of this experience.

My day began with a one-hour morning conference with the residents and physicians. The topics of these conferences were diverse and included updates from different medical fields, reviews of journal articles and current research, and review sessions to help residents prepare for their board examinations.

In the morning, I attended rounds in the hospital with two of the residents and one attending physician. This was a very educational experience that allowed me to learn about a patient’s assessment and treatment plan as well as follow patients over the entire course of their hospital stay.

In the afternoon, I spent time shadowing residents at the Family Health Center. I observed residents as they saw patients, reviewed cases with their preceptor, and wrote their notes. This was an informative experience that allowed me to see the time and work that goes into a patient interaction, from taking a history, performing a physical exam, obtaining a diagnosis, and finally formulating a treatment plan for patients.

While at the Family Health Center, I also spent time conducting a performance improvement regarding continuity of care. I, along with a fellow medical student, devised a brief survey that was conducted in-person with patients while they were waiting to be seen by a physician. The survey allowed us to engage in one-on-one conversations with patients and understand the perceptions that they have about the role of a primary care physician (PCP).

After completing 104 surveys, the results were analyzed and presented at a morning conference in front of the residents and attending physicians.

REFLECTIONS

Conducting surveys for the performance improvement project allowed me to gain insight about patients’ opinions of the care that they receive at the FHC. Most patients were familiar with the term PCP and felt that it was important to see the same doctor at each visit. However, many patients were unable to identify their PCP and their visit history to the clinic often showed that they saw a number of different physicians in the past. After analyzing our results, it became apparent that there were some barriers to continuity of care: appointment accessibility and a lack of awareness that patients can request appointments with a specific doctor.

From these results, we were able to make a few suggestions to residents and attending physicians at the FHC, such as handing out personal cards when establishing care with a patient, initiating a dialogue with patients about their PCP, and encouraging patients to make follow-up appointments with the same doctor. We believe that these measures can help increase continuity of care and strengthen doctor-patient relationships.

My involvement at St. Joseph’s also allowed me to make other observations regarding patient care. One aspect that was particularly striking to me was the importance of recognizing socioeconomic factors when providing care for the patient, especially when working in an underserved area. I saw this most while shadowing in the hospital when it came time to discharge patients. In some cases, patients did not have stable living situations and it was obvious that discharging these patients without addressing these underlying social issues would be a mistake. This decision would likely lead to worse outcomes and subsequent readmissions.

This experience allowed me to see the extent of the involvement of the physicians in terms of addressing these social factors and how important this was for the overall care of the patient. I observed the residents speak with discharge planners, contact local community organizations, and reach out to the patient’s family members in order to do everything they could for the patient. I was able to see that providing care means much more than reaching the proper diagnosis, ordering tests, and prescribing medications; it involves caring for the whole person and recognizing the many factors that contribute to the health and well-being of a patient. This experience highlighted this aspect of patient care, which I consider to be essential.

BIBLIOGRAPHY

West Nile Virus and Beach Surveillance Service Learning Project

Amanda Moyer

New York Medical College, Valhalla, NY, USA
Westchester County Department of Health

BEACH SURVEILLANCE

INTRODUCTION

The department of health tests all swimming sites in the county that are open to the public to monitor the levels of bacteria and various algae types. If left unchecked, especially in the warm summer months, these organisms can proliferate, leading to possible ingestion and infection. Common diseases associated with recreational swimming in the United States include Cryptosporidium, Giardia, Norovirus, Salmonellosis, Viral Gastroenteritis, and E. Coli 0157:H7 infection. To prevent contraction of these the Beach Surveillance tests all non-chlorinated swimming sites within the county. Test are enterococcus, fecal coliforms, E. coli, and blue green algae.

SURVEILLANCE WORK

For this project, I worked with a team of people to travel around the county and collect water samples to be delivered the health department bacteria lab and tested. We were responsible sample collection at all beach, lake, pond and riverfront swimming areas on a weekly basis. Each water source has a set of organisms for which they needed to be tested, and if the levels of bacteria prove to be above the safety threshold, that swimming site would have to be closed by the health department until they underwent a treatment procedure or the levels dropped on their own. Often, bacteria levels were elevated after heavy rains, due to which potentially contained chemical fertilizers. In these cases the initial test to give time to wash away. We red lakes for blue-green algae in particular was ongoing treatment for a rampant population of blue-green algae, and we collected samples and took photos on a regular basis to monitor the cleaning process.

COMMUNITY IMPACT

Water quality is an incredible important issue facing health departments across the country. In Westchester and other areas, there is a slowly declining state of the water quality of the rivers, lakes, and ponds. This is almost exclusively due to human pollution, and as I have seen, it is a tedious, expensive and not always successful process to treat these water bodies. The consequences for us are, that more more and more beaches are subject to closure, and the extent of the impact on the environment is still unknown.

WEST NILE VIRUS SURVEILLANCE

INTRODUCTION

West Nile Virus is a mosquito born arbovirus. In Westchester county, the two genres of interest are the Albopticus and the Cullex mosquitoes. Infection is asymptomatic in 80% of cases West Nile Fever in the remaining 20% and deadly neurologic symptoms in 1% of cases. The first case of West Nile occurred in New York City in 1999, and has since spread across the United States. After this outbreak the West Nile Virus Surveillance program was implemented in many New York State counties in an effort to control and monitor the spread of disease. In the early 2000’s there were huge efforts across spray insecticides to eliminate mosquitoes. The county continues to protect against all born diseases by larvicide storm drains. The New York Virus Surveillance Program is the county’s way determining the effectiveness of these preventative measures at the level of the mosquito vector.

SURVEILLANCE WORK

For this project, I worked with a team of people to set up mosquito traps at various parks around the county to catch mosquitoes. The two trap types we used were CDC traps and Gravid Traps. The CDC traps use a cooler containing dry ice that slowly releases the carbon dioxide to attract mosquitoes. Then, a battery-powered fan attached to the cooler sucks the mosquitoes into a container from which they cannot escape. This trap captures all types of mosquitoes of both genders. The gravid trap utilizes gravid water (a fermented hay and water mixture) to attract specific mosquitoes, namely females that have recently bitten a host. Only female mosquitoes feed on the blood of other animals, and it is because they need protein from the blood to lay eggs. Once they have acquired the blood, they are looking for a pool of stagnant water on which to lay the eggs. The gravid water is ideal for this purpose and once the mosquitoes get close to the water in the trap, a fan sucks them up into a container from which they cannot escape. This trap is particularly useful because the recently fed female mosquitoes are the only ones that can harbor West Nile Virus. Once we gathered the mosquito containers, we placed them in a freezer to kill the mosquitoes while preserving their bodies and any virus they may be carrying. Then we separated them based on location, trap type and species. After they are shipped to the lab in Albany, they are processed and tested, and the results are relayed back to the Westchester County health department.

COMMUNITY IMPACT

Although there were no positive batches during my time working with the health department, at this time, there have been six positive batches of mosquitoes. West Nile is still a concern in New York State and every year, there are reported cases. However, thanks to a number of preventative measures that the health department has taken, the number of cases have been decreasing. Last year in Westchester county there were only six mosquito batches that tested positive for West Nile Virus and two reported cases in the population. With time, there is hope that West Nile will eradicated.

SERVICE LEARNING

“There is an unbelievable gap separating the science of disease from the protection of the public against those diseases.”

In searching for a summer project, I was hoping to find a setting in which I could explore my interests for either public health or infectious disease epidemiology. The West Nile Virus Surveillance Program with the Westchester Department of Health satisfied both of these interests, and I found it to be a very worthwhile and eye opening experience. I came to realize the full extent of the effort, man-hours, and nuances involved in planning and implementing public health projects. There is an unbelievable gap separating the science of disease from the protection of the public from those diseases. Knowing the theories behind the spread infection and the medical knowledge of disease treatment helped to prepare me, but I came to realize that medicine and doctors are just one very small part of the health care system that protects every person in this country. I spent four weeks this summer aiding in both the West Nile Virus Surveillance Project and the Beach Surveillance project. Although the work that I was doing was not clinically based, I was still providing an essential service, and at the same time learning about disease and the health department. I found out how little I had previously known about the health department regarding its internal milieu, it’s employees, and the truly essential roles it plays in society. As a rising physician, I greatly benefited from everything this program has taught me, and will move forward in my career with greater knowledge and appreciation for my role and that of others in the health system that protects and cares for our citizens.

DELIVERABLE

As part of the service-learning experience and to show my appreciation, I designed a sign to be placed on the mosquito traps which serves multiple purposes. Primarily it contains a polite request to dissuade people from disturbing the trap. The department of health has had issues in the past with people disrupting or stealing parts of these traps. With the hope that greater transparency will show the public the importance of this project and prevent further tampering, I included educational information about the trap functions and how to protect oneself from mosquitoes and mosquito born diseases. I hope that this will not only prevent future incidents, but build the connection between the department and the public.
Service Learning is…

...an opportunity to give back to not only the physicians who have taught me, but also the many patients from whom I have learned.

“In the U.S., while 75 percent of mothers start out breastfeeding, only 13 percent of babies are exclusively breastfed at the end of six months.”

....a space to investigate the reasons behind this statistic, and a platform to try to even the odds for women who face barriers to professional breastfeeding assistance.

During my time at the Neighborhood Health Center, I helped with a project aimed at increasing the number of women who breastfeed for at least six months. Here is the front of the informational brochure that we created to help link women to local resources on breastfeeding, such as WIC and La Leche League.

American Academy Of Family Physicians. Breastfeeding is Welcome Here. aafp.org

The Neighborhood Health Center is also working towards becoming a Baby Friendly environment. Part of that includes welcoming mothers to breastfeed in the clinic through something as simple as this encouraging sign.

Breastfeeding your Baby

Breastfeeding can help protect your baby from getting sick! It is healthiest for moms to breastfeed for at least six months. Many moms have a hard time breastfeeding in the first few weeks after their baby is born. If you are having trouble breastfeeding, there are many people who can help! Look inside for a list of free, local resources where you can find help with breastfeeding.
