GLOBAL HEALTH CENTER
PENN STATE COLLEGE OF MEDICINE

STUDENT SCHOLARSHIP REPORTS

FOR THE

SPIRIT OF LIFE CHARITABLE FOUNDATION

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Report for the Spirit of Life Charitable Foundation Scholarship for International Studies

Penn State College of Medicine Global Health Center
Medical Student Project Report

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Project Title: Diabetic patients' perceptions of barriers to health in Mbour, Senegal: A Photovoice project.

Project Location: Mbour, Senegal

Project Timetable: June 3-July 2

Summary of the Experience:
During the first few days, we settled into our house in Mbour and met with our contacts. In our group there were 12 Penn State students, along with our advisor, Dr. Rhonda BeLue. There were 4 medical students, 2 PhD in public health students, 4 global health undergraduate students, and 2 nutrition undergraduate students. Dr. BeLue's assistant, Fatou, is from Mbour and her father, El Hadji, lives there. El Hadji was our translator for our interviews with diabetic patients. He also made us welcome into his home any time. We also met with Dr. Diaw, the director of Mbour's hospital, to discuss a plan for our clinical shadowing. On Friday, we left Mbour for the weekend to visit St. Louis, the former capital of Senegal during French rule.

On Monday of the first full week, we began shadowing at the hospital. The 4 medical students and 3 of the global health students spent about 3 hours in the hospital every morning. I was one of 2 students who spoke French, so we broke up into groups of 3 each with one "translator" (one of the global health students was on her own in the dental clinic because she planned to apply to dental school). Over the next 3 weeks, we rotated through the different services in the morning. We spent time in the emergency department, the internal medicine ward, pediatrics, and the operating room. We also spent time in the offices of diabetes management, HIV/AIDS management, cardiology, and dermatology.

For about 2 hours before we went to the hospital each morning, my partner Allison and I would meet up with El Hadji to complete our Photovoice project. For this project, we would give diabetic patients (in El Hadji's neighborhood) a camera and ask them to take pictures of people, places, and things which helped and hindered their ability to manage their diabetes. We gave each participant 2 days to take pictures. Then, we would

return to interview the participants and ask them to explain each of the pictures they took.

In addition to the Photovoice project, in the afternoons I helped (mostly as a translator) the undergraduate students complete a needs assessment at the hospital. The goal of this project was to provide future site students with an understanding of the hospital's resources and challenges. In addition, we created a list of sustainable resources which we may be able to provide to the hospital in the future.

During the second weekend, we were fortunate to participate in Fatou's wedding. We experienced many of the Senegalese traditions, including having clothes made by a tailor, eating with Fatou's friends and family, and joining in on the dancing celebrations. Overall, Fatou's friends and family were very kind and welcoming to us. They enjoyed taking us on day trips and teaching us about their culture. But they were also interested in learning about our culture.

During our last week in Mbour, we organized a day-long event at the hospital to screen local people for blood glucose, blood pressure, weight, and waist circumference. We also provided them with education about lifestyle modifications, such as exercise and nutrition. On that day we were able to screen and educate over 200 people.

Learning Achievements:

Since we had cooks who provided us with traditional Senegalese meals every day, I felt that I had a better idea of the challenges Senegalese people face when they are told they must adhere to a diabetic diet. The main staple of their diet is rice. Produce and protein sources (other than fish, since Mbour is a coastal town) are relatively expensive. So the majority of the caloric intake of meals tended to simple carbohydrate. The lack of fruits and vegetables made it difficult for diabetics, and people in general, to consume a proper balance of vitamins and nutrients. I also learned about what aspects of life the diabetics of Mbour perceive their biggest barriers to health. Many of them commented on their inability to adhere to their diet due to finances. They also were worried about being able to afford medications and visits to the doctor, especially since all health expenses are paid out of pocket in Senegal.

Being in the Mbour hospital with the doctors was a very different experience from being in an American hospital. The most obvious difference was the striking lack of resources. Although I saw that many of the doctors were frustrated by their lack of resources, they were incredibly resourceful people in that they made the very best of what they had. Interestingly, this made me realize how much of my training thus far has been based on the technological resources that are readily available in almost every

American hospital. For example, there are no pulse-oximeters or heart monitors in the hospital (except for a heart monitor in the operating room). There is no genetic testing and, often, there is no way to culture a specimen from somebody who comes to the hospital with an infection. They have one EKG machine with fixed leads that, according to the cardiologist that consults at the hospital one day a week, is old and difficult to interpret. However, as I spent more time at the hospital, I realized that, because we have many of these resources readily available, it can be easy to forget the importance of taking a detailed history and physical exam. The doctors in Mbour seemed to be very in tune with their patients on this level.

Program Strengths:

The biggest strength of this program was the involvement of the community. On the day of the screening, I felt inspired by the community of Mbour and their desire to confront the growing problem of diabetes in their town. I feel that the partnership between Penn State and the Diabetes Association of Mbour will only grow stronger. I look forward to continuing my involvement in the project over the next few years.

Additionally, Dr. Belue and her assistant Fatou did a fantastic job planning our housing, food, and cultural excursions. Fatou and her husband's family and friends were also incredibly welcoming and went out of their way to spend time with us and open their homes to us.

Program Shortcomings:

There were very few shortcomings to comment on. At times, since there were only a few people on the trip who spoke French (including myself) many people had difficulty communicating with locals. Thus, the people who did not speak French became dependent on those that did. I saw this as an opportunity to practice my language skills, build relationships with locals, and learn more about the community. However, for some of those who spoke neither French nor Wolof, language seemed to be a significant barrier to communication.

Impact:

This trip has changed my point of view in many ways, most of which I am still in the process of understanding. As far as the hospital experience, overall I learned to appreciate to importance of history and physical exam skills. Additionally, I learned to understand patients' nonverbal cues on a more conscious level, since my French was often unhelpful when patients had a heavy accent or spoke in Wolof. As a physician, I have no doubt that I will use both of these skills every day of my career.

Although I was an outsider, my Photovoice project allowed me to gain access to the diabetic community of Mbour in a meaningful way. In particular, since El Hadji is known and respected in his community, I was awarded some inherent respect, simply by association.

The nature of the project itself, however, also allowed me to connect with people in on a deeper level. Often times in medicine, we only have a short office visit to learn about our patients and understand their background on a basic level. Since we were asking the participants personal questions about their quality of life, rather than focusing on simply diagnosis and treatment of their disease, I gained a deeper understanding of some of the socioeconomic issues surrounding chronic disease.

We were also usually visiting people in their homes. Thus, we had a chance to not only ask them questions about their lives, but also to see how they live, where they live, and who they live with. In the case of our Photovoice participants, their barriers to health became more real for me, since I was observing their everyday lives.

Of course the ideal situation is to prevent chronic diseases, such as diabetes. However, as in the US, the prevalence and impact of chronic diseases are growing problems in Africa, and they must be addressed. On a personal level, this experience has helped me understand some of the barriers to health for chronic disease patients in resource-poor areas. Since I will not have the opportunity to spend this kind of time with most of my future patients, am I grateful to have this experience so that I can at least be more aware that my patients may have many similar issues.