Executive Summary

This summary is excerpted from the complete report generated from the six professional students who participated in this experiential learning project in Malawi in July and August of 2011. The full report is available upon request (Dr. Miriam Laufer: mlaufer@medicine.umaryland.edu). Faculty mentorship and supervision was provided by: Dr. Miriam Laufer (Medicine), Dr. Judy Porter (Dentistry), Dr. Jody Olsen (Social Work) and Dean Diane Hoffman (Law).

What we did

Through the support of the Office of the President by way of the Global Health Resource Center (now the Global Health Inter-professional Council) of the University of Maryland, Baltimore, the professional schools of Dentistry, Law, Medicine, Nursing, Pharmacy, and Social Work joined together to offer an interdisciplinary team of students a unique opportunity to take their skills to an international setting and collaboratively work together. Each school selected one student to participate in a six week project in Malawi during the summer of 2011.

The project assigned to the students was to determine where adults and children seek care for malaria in a region of Malawi that is hyper-endemic for malaria infection. It was a pilot study for Dr. Laufer's funded NIH grant to conduct surveillance for malaria in three districts, part of Malawi's International Center for Excellence in Malaria Research. The objectives of the project were to design and implement a survey to capture the health care utilization practices related to fever illness in the Chikhwawa District, a rural district in Southern Malawi. The team selected four villages in the catchment area of the Chikhwawa District Hospital (CDH) to implement their survey, two which were relatively nearby (Lauji 1 & Kapasule 1) and two that were more remote (Morgeni 1 & Kandeu 1). For the duration of the project in Malawi, the student team worked in partnership with the staff at the Blantrye Malaria Project who provided invaluable guidance and services.

To inform the development of their survey, the students were introduced to representatives of the health care system and policy makers in Chikhwawa District. These individuals educated and oriented the team about health care systems at the community level, the supply of health care providers, the outlets of treatment, and the history of malaria-specific health policies as well as the effects of malaria on their community. The students used this new knowledge, along with in-depth review of the literature, to formulate a comprehensive survey tool.

A randomization method, referred to as the random walk method, was used to select 117 households within the four villages. The students divided into teams to implement study procedures. They obtained informed consent from the head of households and were able to interview 96 households with the help of translators. The team collected data on all the individuals living in the household which included demographics, access to care, and events of fever and related follow-up care and treatment.

To fully document the interdisciplinary aspects of their experience, each student was asked to maintain a daily diary of their reflections and activities during the entire duration of the study from study preparation at UMB until they returned from Malawi.

What we found

The student team arrived in Malawi during the dry season in July 2011. They collected data from 96 households which included 436 household members, an average of 4.5 ± 1.9 people

per household. In all, there were 218 males and 218 females of which 202 were adults and 234 were children (78 were ages 5 years and below, 156 ages 6-18 years).

It was reported that 102 (23%) individuals experienced an episode of fever within the past month at the time of the survey of which 26 of them (25%) were among children ages 5 and below. The average duration of illness was 1.5± 2.3 days (range 0-14) before seeking treatment. Residents of those in the nearby villages of the district hospital on average sought treatment significantly earlier than did residents in the far villages (0.85 ± 1.3 days vs. 2.26 ± 3.0 days). Care was sought for children more quickly than for adults (0.87 ± 1.3 days vs. 2.19 ± 3.0 days).

Individuals can seek care and treatment at health care facilities including government health centers (such as CDH), local health clinics and private clinics. In the two remote villages, health surveillance assistants (HSAs) have been trained to administer basic health care and provide medication for common illnesses for children under five years of age. This included the provision of antimalarial treatment for children under five who have symptoms of malaria (generally this means fever). HSAs in the villages near the central hospital did not have this medication. At all sites, medication was obtained from these facilities as well as local pharmacies and shops. Across all villages, 60% of the 101 patients sought initial care at CDH. However, residents of the nearby villages were more likely to seek initial care at CDH over other facilities compared to those in the far villages (58% vs. 30%). This difference also held true when only considering children under the age of 5 years. The survey attempted to track referral patterns and found that 17/55 patients (31%) who did not initially seek care at CDH did eventually seek care there either due to referral or because of dissatisfaction with alternative sources of care.

Barriers to care were related to the distance from CDH and to transportation. Residents of the four villages have a range of transportation options to travel to the local hospital. The distance to travel to CDH from the far villages, going one way, was 20 to 27 km on dirt roads whereas the near villages were within 5 km of the district hospital. Options for travel included walking, riding a bicycle, hiring a bicycle taxi, or hiring a private ambulance; the last option not being an economically feasible one for most villagers. For the near villages, travel time was approximately one hour and for far villages was four hours. Anecdotally, the team observed that relative's homes in proximity to health care facilities becomes a factor in where patients seek care, i.e. making rest stops along the long stretches to a health center.

Reflections

Students who participated in this project made a strong commitment to work together. Although the summer project spanned six weeks in Malawi, their participation required them to spend months together—first in preparation for the trip, then collaboratively working with their Malawian partners and rural communities, and upon their return, to process and analyze the study results and reflecting on their experience. The team returned to share their experiences and new found ideas of interdisciplinary work with their colleagues, families and friends. Through the following reflections quoted by each student below, it is evident that the summer project of 2011 successfully fulfilled the goals of the GHRC to promote international research, health education and multidisciplinary cooperation. It went further to promote each student's professional growth and individual perspective about their scope of practice and the powerful impact of using an interdisciplinary approach.

"We learned so much from one another last summer and equally important, I want to highlight that we learned so much from our Malawian colleagues and villagers we worked with and who shared their time and experiences with us. Being from a highly "developed" and well-educated country, we are led to believe that we have so many answers, forgetting that we have just as much to learn from someone in a rural Malawian village." –Jane Hannon, School of Nursing

"It is an experience that I will always be able to apply to the work that I will do throughout the course of my life—how to effectively negotiate and collaborate with others, how to give and take, how to be open to other ideas, how to work from a truly professional interdisciplinary perspective and how to form positive working collaborative relationships with disadvantaged communities all the while maintaining cultural sensitivity." –Angie Larenas, School of Social Work

"For me, what I thought I could bring to the table completely changed when put in a Malawian culture. It took a team of professionals working together in order to figure out how to reach this population. By no means did we find the answer to curing malaria in Malawi but we did connect with a community. To me, this trip was about more than pharmacy, or medicine, or social work or any single profession. My experience in Malawi is about friendship, family, hard work, and perseverance. It was through these experiences that I was reminded of some of the most valuable lessons of my life." –Jason Hodge, School of Pharmacy

"To be able to see a patient and know you have the input of a nurse, a pharmacist, a social worker, a dentist, and lawyer, literally at your side—might we not all be able to concentrate even more on what we are best at, recognizing the difficulties of each other's tasks, the strengths in each other's perspective. We learned, quite literally, to live in community with each other while we were in Malawi, and I think we brought back some of that mentality with us and hopefully we can carry it always as we continue throughout our careers." – Elizabeth Duke, School of Medicine

"It would not have been possible to reflect on these issues without an interdisciplinary team because of the complex nature of health—a state of complete physical, mental and social well-being, not merely the absence of disease or infirmity. A single public health professional may only individually address one facet, but if aware of the more holistic approach to health, she can call on other resources within and outside of her discipline to fully address the problem. To do that requires consciousness of the core competencies of one's own profession but also it's boundaries." – Lucy Mac Gabhann, School of Law

"Before beginning this project, it was hard to imagine what I had in common with or could learn from students on campus whose courses of study were completely outside of dentistry. What I found in our time together however, was that we all have much more in common that we thought. Of course we all have different ambitions and goals within our individual careers but at the core of dentistry, social work, medicine, nursing, pharmacy, and law we are all trying to solve problems and in turn, increase the quality of life for our patients and clients." – Shabnam Mazhari, School of Dentistry