

Practicum Project Proposal

Title: *The Effect of Foreign Medical Aid on Hypertension in Haitian Adults*

Practicum Site: Hopital Ste. Croix, Leogane, Haiti; L'Azil, Haiti

Practicum Preceptor: Dr. Christopher Buresh, MD, UIHC

Purpose of Practicum

The purpose of this practicum is to gain experience in conducting epidemiologic studies in a global setting, and to analyze the impact of consistent foreign medical aid in a developing nation. Hypertension among Haitians is extremely prevalent, yet few are aware of the deadly condition and even fewer are being properly treated for the disease. As a result, many Haitians unknowingly suffer from hypertension and this undiagnosed disease has been the underlying cause of many deaths from heart attacks to strokes. However, even if diagnosed, hypertension requires medication to be properly controlled and Haitian hospitals and clinics often do not have the financial resources to treat everyone who has hypertension. Foreign doctors, who treat patients and bring medications for hypertension, often visit Haiti. However, there is more to treatment than just bringing the medications, doctors must perform follow-up visits and ensure that patients are taking their medications properly. Thus, another objective of this practicum is to determine the effect of foreign aid on hypertension in Haiti. The studies will evaluate if medical aid that is being brought to Haiti is helping to reduce the prevalence of hypertension. These studies will show if more needs to be done to educate and ensure that patients have background knowledge of hypertension and the consequences of not taking prescribed medications.

Description of planned objectives and activities to meet Practicum purpose

In order to assess the implications of medical aid, I will be comparing two populations in Haiti, one that has seen more consistent foreign aid and one that has not. The study population will be from a clinic close to L'Azil, Haiti, a population that has seen some medical aid consistently. A medical team has visited this village roughly every 6 months since late 2006. From this population we will be recording age, BP, pulse, medications and vital sign measurements and assessing whether or not patients are hypertensive. This population will give a representation of prevalence of hypertension in areas that have had access to medical aid. The comparison population will be from a clinic near Leogane, Haiti, which has had no regular access to medical aid. These populations are often visited

by foreign medical teams sporadically, often only once in a decade. In this setting we will assess the same measurements and make conclusions about the prevalence of hypertension within a population that has had access to medical aid. Once all data has been collected and analyzed, conclusions will be made assessing whether or not the medical aid that has been provided has had an impact on the prevalence of hypertension in populations of Haiti. The comparison between the two populations will show if medical aid that is been sent to Haiti has an impact on the health of the people. If the studies show no differences between the two populations, this will demonstrate that more work has to be done to ensure proper follow-up and education within Haitian clinics, and possibly the need for more frequent visits to replenish drug supplies. Doctors need to make certain that medications are being taken everyday and that Haitians understand the risks that hypertension presents to their health and life expectancy.

Public Health Competencies achieved through Practicum

This Practicum experience will provide me with the opportunity to practice and perfect public health competency skills.

- *Analytic/Assessment Skills* have been used in the development of the project that is taking place and what the study needs to compare in the two Haitian populations. I have identified the variable of consistent foreign medical aid between two populations and will assess the impact of that variable on the health of two different Haitian populations. I will obtain quantitative data about hypertension in adult Haitians and using analysis will assess the data determine whether medical aid is effecting the prevalence of hypertension within the country.
- *Policy Development/Program Planning Skills* will be used in determining a specific study design after carefully examining what has been successful in previous studies of hypertension in developing nations. To determine proper definitions of the hypertension I will reference previously published literature and the American Heart Association to ensure that all subjects are properly diagnosed.
- *Communication Skills* will be used in conducting all studies and taking data about patients' medical history. I will also be communicating with the doctors at the clinics to record their medical diagnosis of the patients that are enrolled in the

study. At the conclusion of the project I will present my data and conclusions to my peers and professors, and express how my project was performed and the conclusions and skills that I drew from the experience.

- *Cultural Competency Skills* will be used throughout my time in Haiti, as I will be immersed in a foreign culture that does not have access to the same resources that I do on a daily basis. I will have to be aware of the differences in privileges, socioeconomic status, rituals and religions when interacting with the Haitian public. I must be sensitive and respectful to a lifestyle that will be very different than mine and population that doesn't have the same knowledge base that I have been privileged to receive.
- *Community Dimensions of Practice Skills* will be used when working with both clinicians from The University of Iowa and the healthcare workers within the Haitian medically system. I will have to work with community members to receive the correct information to aid in my studies and work with a translator to ensure that my purpose for the study is being told to all subjects who are enrolled. It will be essential to gain the confidence and trust of the subjects and help them to feel comfortable around unfamiliar people.
- *Basic Public Health Science Skills* will be utilized in designing an epidemiologic, cohort study that will assess the prevalence of hypertension in adult Haitians. I will also utilize biostatistics and other analysis skills to make conclusions about the effect of medical aid on hypertension in Haiti. I will have to control for confounding factors and take into consideration cultural differences that could affect, and possibly bias, the outcome of the study.
- *Financial Planning and Management Skills* will be used to implement a budget for the trip, including taking into consideration the cost of transportation, housing, food and supplies that are needed for the study to be carried out. I must be prepared to manage the study in a setting where I will likely not have access to computers, printers, general technology, etc. I will also have to manage my time, as I will not be in the country long and will have to enroll as many patients as possible, thus, it will be essentially to be well organized and prepared for worst case situations.

- *Leadership and Systems Thinking Skills* will be utilized due to the innately independent nature of this project. I will have to be organized and assertive and take the initiative to talk to patients and doctors about the diagnosis of all study subjects. I will also have the responsibility of analyzing all data and contacting professionals if I need outside opinions about results or conclusions. The conclusion of this project will be dependent upon my leadership skills and ingenuity to start and complete a very independent project.

Human Subject's Office/Institutional Review Board Approval

This project will require IRB approval, which has been set up and submitted by Dr. Christopher Buresh and has been edited by myself. The IRB application is currently under review.

Practicum Timeframe

This practicum will take place over the course of several months, which will encompass two trips to the cities of L'Azil and Leogane in Haiti. The first trip to Haiti will be in June 2009, where we will be spending one week in Haiti. There we will have two days of clinic in L'Azil, Haiti and three days in the hospital in Leogane, Haiti, one in a clinic that is rarely visited by foreign doctors. Once I have returned from Haiti, I will spend a significant amount of the summer converting all data to electronic form and then analyzing all data from the trip and starting to shape a possible conclusion that can be drawn from the studies. The second trip will occur over winter break 2009-2010, where I will enroll more subjects and obtain more data over the course of another two-week trip. I will then return and analyze all data and come to a more definite conclusion about the outcome of the studies. I will officially register for the MPH practicum in the spring of 2010, and will present a poster in May.