Public Health Practice

Stories from the Field
The University of Texas School of Public Health
Student Practicum Experiences
Summer 2013 – International
The practicum experience is an integral part of the MPH and DrPH curricula. Public health students are provided with the opportunity to apply their classroom knowledge to real world settings through which they make a meaningful contribution to a public health organization.

Under the guidance of a community preceptor and faculty sponsor, students from all divisions gain a deeper understanding of public health practice, interact with professionals in the field, and expand their repertoire of professional skills.

This eleventh-edition e-magazine showcases student practicum experiences throughout the Summer 2013 semester. (Prior semesters may be accessed through the e-book, a collection of student abstracts and e-magazines describing their experiences.)
# Practicum Topics

Serving Size: 1 Practicum per Student
Servings per e-Magazine: 10

<table>
<thead>
<tr>
<th>Continents/Regions</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Countries</td>
<td>9</td>
</tr>
</tbody>
</table>

## International Practicum Experiences

### AFRICA

<table>
<thead>
<tr>
<th>Country</th>
<th>Practicum</th>
<th>Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ghana</td>
<td>MOTECH Program Evaluation</td>
<td>Sharon Attipoe-Dorcoo</td>
</tr>
<tr>
<td>Uganda</td>
<td>Maternal &amp; Child Health</td>
<td>Caryn Turner</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>Integrated Family Health Program</td>
<td>Tseday Woubishet</td>
</tr>
</tbody>
</table>

### EUROPE

<table>
<thead>
<tr>
<th>Country</th>
<th>Practicum</th>
<th>Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switzerland</td>
<td>World Health Organization, HIV/AIDS</td>
<td>Katelyn Kassarjian</td>
</tr>
</tbody>
</table>

### NORTH AMERICA

<table>
<thead>
<tr>
<th>Country</th>
<th>Practicum</th>
<th>Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>Training Lay Inuit Health Workers</td>
<td>Véronique Morin</td>
</tr>
</tbody>
</table>

### SOUTH AMERICA

<table>
<thead>
<tr>
<th>Country</th>
<th>Practicum</th>
<th>Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colombia</td>
<td>Child Health in Bogotá</td>
<td>Christopher Kaipust</td>
</tr>
<tr>
<td>Peru</td>
<td>Tuberculosis Treatment Adherence</td>
<td>Brian Lackey</td>
</tr>
<tr>
<td>Guatemala</td>
<td>Hygiene and Sanitation in Xela</td>
<td>Stephanie Ossowski</td>
</tr>
<tr>
<td>Guatemala</td>
<td>Water Sanitation &amp; Hygiene</td>
<td>Gabriela Villanueva</td>
</tr>
</tbody>
</table>

### SOUTH EAST ASIA

<table>
<thead>
<tr>
<th>Country</th>
<th>Practicum</th>
<th>Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philippines</td>
<td>Multi-Drug Resistant Tuberculosis</td>
<td>Lilalyn Punsalan</td>
</tr>
</tbody>
</table>
Mobile Technology for Community Health in Ghana.

By: Sharon Attipoe-Dorcoo

The government of Ghana decided to implement a community-driven healthcare effort in 2000 known as CHPS (Community-based Health Planning and Services Initiative). Nurses and volunteers were mobilized in the communities where they provided care at health posts. Although this was a great effort to combat the access to healthcare, there was still inequity in the needs of pregnancy, delivery and infant health.

In an effort to address this inequity, the Mobile Technology for Community Health (MOTECH) program was developed to deliver pregnancy-related messages (text or voice) to mobile phones for registered pregnant women and their families in local languages. The pregnant women were registered in the MOTECH database and enabled community health workers to communicate with the pregnant women and health workers.

An evaluation of the MOTECH pilot program in Kassena Nankana in the Upper East region of Ghana was done to assess the health outcome on women registered in the program with pre-MOTECH (2009) and post-MOTECH (2011) data from this district.

The objective question was: did MOTECH positively affect receipt of antenatal care (ANC), which is an intermediate outcome that would presumably influence maternal and mortality outcomes. The hypothesis tested was that access to ANC is increased with MOTECH availability. Effectiveness and efficiency analyses were done to determine not only the value of the program, but cost-effectiveness as well. The method of effective analysis involved a case-control study to determine the odds of not having access to antenatal care (NoANC) with and without MOTECH. TreeAge software was used to calculate an incremental cost-effectiveness ratio to determine how efficient the program was.

Public Health Significance

The MOTECH program sought to inform, educate and empower pregnant women on pregnancy related issues. MOTECH worked well together with the CHPs program that mobilized community partnerships to enhance access to equitable healthcare.

My practicum specifically enabled me to evaluate the effectiveness and efficiency of the MOTECH program which in itself is a new innovative way to solve the access to health information problem. This approach eventually has long term impacts on maternal and infant mortality rates.

Overall MOTECH had a positive impact on access to healthcare for pregnant women in the Kassena Nankana district of the Upper East region. The rates of access to NoANC decreased with MOTECH implementation, from 11.2% to 2.1% with women been six times more likely to have antenatal care under MOTECH than without.

From an efficiency standpoint, the long term impact on health costs with MOTECH implementation is positive with an incremental cost of $74,756 for MOTECH to be added to the existing CHPS strategy.

Advice

• Program evaluation is a dynamic process that does not function well under time constraints.

Graphical representation of the NoANC rates prior to and post MOTECH

STATA graph I created with data from Ghana Health Services
Public Health Significance

The eranger program was made to link the community members with their health center so they could get care not only during their pregnancy but also in labor. This helps women get to the health center once in labor and it guarantees them a safe ride from the health center or hospital.

I worked to inform, educate and empower community members about maternal and child health issues. We helped lower rates of malnutrition by encouraging community groups to plant a variety of fruits and vegetables so their diet meets the needs of the most at risk in the communities.

One of the biggest health barriers for pregnant women in Uganda is the cost of transport. Through the eranger program, women are encouraged to save money so they can afford the fuel cost of the eranger when they need to use it. The women do not need to worry about paying more if they have a complication because the program provides rides to the women from home to health centers to the hospitals if referred and then back home again.

Special events/ duties during your practicum

- I helped launch the Eranger which is a motorcycle ambulance to help women in labor get to the clinic
- I worked with community groups to improve the health of women and children

Advice for Future Students

- During your practicum it is important to understand all the lessons you are learning may not necessarily be about what you came to study. Your teachers will be your supervisor but also many other people in the community. Learn from all your teachers.
Integrated Family Health Program in Ethiopia

Practicum Highlights

- Conducted literature review for a research paper on integrating FP and HIV services, one of the IFHP intervention areas
- Wrote success stories and news for the SPL unit newsletter
- Organized and participated in an exhibition to promote IFHP’s work on HIV and youth.

I learned that there can be no ‘universal’ public health intervention to solve health problems. Public health interventions must be tailored based on an understanding of the target community’s culture, religion, beliefs, etc.

Systematic Program Learning (SPL)

By: Tseday Woubishet

I worked on Integrated Family Health Program (IFHP) at an NGO called Pathfinder-International in Addis Ababa, Ethiopia. IFHP works to improve the health of families and particularly focuses on Reproductive Health (RH), particularly Family Planning (FP) and Maternal, Newborn and Child Health (MNCH).

I worked with the systematic program learning unit of IFHP which focuses on knowledge management to enhance health program outcomes and for future policy and program implications.

The SPL unit uses knowledge management framework to generate, share, store & use successes and challenges of the different IFHP programs to enhance health program outcomes and for future policy and program implications.

My duties included assisting the SPL unit in identifying, documenting and sharing program lessons. I conducted literature review for a report on an IFHP-implemented project; I produced news and different project success stories for the unit’s newsletter; I also helped organize an exhibition to share the success of IFHP projects on HIV and the youth.

Public Health Significance

IFHP projects relate to several of the Essential Services of Public Health. The ones that most resonated with my practicum experience included informing, educating and empowering people about public health issues; and evaluating effectiveness, accessibility and quality of personal and population-based health services.

IFHP gives technical support to inform, educate and empower rural communities regarding public health issues such as family planning; IFHP also works with university students to prevent HIV and STIs. I was able to write a success story on how an IFHP-intervention on FP has changed the life of a mother of four on ART. I was partnered with a senior staff to organize and take part in an exhibition to share the impacts of IFHP’s program on HIV on university students. IFHP also brings together a Technical Advisory Committee (TAC) to evaluate the effectiveness, availability and quality of the different projects being implemented in intervention areas.
Informing and Empowering Governments On Their HIV/AIDS Situation

By: Katelyn Kassarjian

This summer I had the incredible opportunity to travel to Geneva, Switzerland and work at the World Health Organization Headquarters! More specifically, I worked within the AIDS Medicine and Diagnostic Team of the HIV Department of Technologies and Commodities.

My main project was working with three databases and compiling pharmaceutical profiles for 80 priority countries. These profiles included HIV prevalence, annual prices of HIV medications, prices compared to the surrounding region, medications prescribed to pregnant women and pharmaceutical manufacturers in that country.

I also analyzed the regulatory situation and their financial impact on a country and participated in the development and implementation of the drug regulatory database.

Public Health Significance

My projects covered five essential public health services: Monitoring HIV/AIDS medication pricing and manufacturing. Diagnosing and investigating the HIV pandemic. Informing, educating and empowering the governments and people on the HIV/AIDS situation in their country. Evaluating the accessibility and quality of population-based HIV/AIDS health services. Linking people to needed HIV/AIDS health services within their country and their surrounding region.

Providing survey feedback to countries allows them to analyze, compare and improve on the monitoring of prices and medications. In return, this ensures that their people and community have the potential in getting the most affordable health care services in HIV/AIDS.

The World Health Organization has always been a key leader of health of on a global scale and will always strive for “the attainment of all peoples of the highest possible level of health”.

Advice for Future Students

- Be sure to take this time to network! Be proactive and set up coffee and lunch meetings with all kinds of people. This is the time to make connections with companies and, who knows, there might be a job offer!
Public Health Significance

Transcultural medicine is challenging. Health indicators among native populations around the world are alarming. In Canada, access to healthcare is nearly universal and yet, with too often few or no native healthcare workers, culturally inappropriate care or communication generates accessibility barriers.

Our project touches several essential Public Health Services. First, we are directly working on building a competent healthcare workforce. We are also hoping that the understanding of diseases and their prevention among Native Interpreters will percolate in the community. Empowerment is a key to better health.

Inuit Health Interpreter training: empowerment via knowledge  by Véronique Morin

Inuulitsivik Health Center is located in the Nunavik tundra, serving seven Inuit villages sprinkled along the Hudson Bay coast. The local population mostly speaks Inuktitut.

In these small communities, it is generally impossible to find professionally trained translators. In each Nursing Station, Health Interpreters serve as the interface between the team of healthcare providers and the Inuit patients; they are lay workers employed for their good knowledge of English, and are mainly trained on the job by peers. Without proper training, but with high expectations and responsibilities, their job is very challenging.

The project was a personal initiative; having worked in the arctic several years as a physician, I became convinced that some basic medical training would help interpreters and ultimately provide Inuit patient with better care. Twelve interpreters were part of our experimental cohort trial which consisted in a week of physiopathology and ethics training.

This Interpreter training project was received with tremendous enthusiasm by the Interpreters, healthcare professionals and Inuulitsivik Board of Directors. I am hoping that this trial will be the first step toward a standardized...
Child Health in Bogotá

Health Status of Military Children in Bogotá, Colombia

By: Christopher M Kaipust

CATCH is an investigative team in the Facultad de Medicina at the Universidad Militar Nueva Granada in Bogotá, Colombia. CATCH works to identify cardiovascular risk factors, particularly nutrition & physical activity, in child & adult populations in order to design & implement educational interventions.

I was involved in a project conducting nutritional & anthropometric health status of military children in Bogotá. We monitored the health status of the children through administration of a food frequency & physical activity questionnaire, a questionnaire designed to identify eating disorders, & directly measuring height, weight, & anthropometric body fat measures.

We used the information obtained from these measurements to classify the children according to BMI & usual eating & exercise habits.

The CATCH team will use these findings to inform the community about the current health problems children face regarding poor nutrition, disordered eating, & underweight, overweight, & obesity.

Colombians associate obesity with the USA, not Colombia. The CATCH team works to inform Colombians of the current issues regarding childhood obesity.

Lessons Learned [OR] Advice for Future Students

• Have confidence in your knowledge of public health. You will contribute much more than you expect.
• Don’t be afraid to complete your practicum in an area which you have little prior experience.

Special events/ duties during your practicum

• Presenting my experiences to the Colombian National Council for Accreditation
• Teaching the importance of public health nutrition to medical students in Spanish

Conducting a skin-fold assessment on a military family school-aged child to measure body fat.
Tuberculosis Treatment Adherence in Peru

By: Brian Lackey

I had the privilege of working at Universidad Peruana Cayetano Heredia for my practicum in Lima, Peru. I joined a team of researchers at the Alexander von Humboldt Institute of Tropical Medicine’s Tuberculosis Investigation Unit in researching factors associated with defaulting from anti-tuberculosis treatment therapy. A cohort study of 1294 smear-positive pulmonary TB patients from a high incidence district in Lima showed an 11% default rate, far higher than the acceptable levels. As such, I was tasked with figuring out who was more likely to default from treatment and why. I performed an epidemiologic analysis of sociodemographic, substance use, and other variables to determine potential associations with an increased risk of failing to complete the prescribed treatment regimen. I performed a multivariable logistic regression model to control for potential confounding factors and presented the results in a manuscript format. Final results are being submitted as an abstract for presentation at The Union World Conference on Lung Health and for publication in a peer-reviewed journal.

Public Health Significance

Tuberculosis (TB) is at the same time one of the most prevalent bacterial diseases worldwide and one of the hardest to treat. Each year, more than a million people die from TB infection. A standard drug-susceptible strain of TB takes at least 6 months of antibiotics to successfully treat, with multidrug-resistant strains often taking 18 months or longer. Research has shown that stopping a treatment regimen early can not only lead to higher chances of relapse and death for the patient, but also development and spread of drug-resistant bacteria in the community. Though programmatic elements such as directly observed therapy have increased treatment adherence in the past few decades, treatment completion rates remain lower than required to stop transmission in many parts of the world. Epidemiological research, an essential function of public health, plays an important part in learning more about why people default from treatment and the associated policy implications.

For Future Students

If you’re interested in doing a practicum at Cayetano in Lima, I would recommend starting to learn Spanish now if you’re not already fluent. The better you’re able to communicate in the local language, the more you’ll get out of the experience and the more you’ll be able to contribute. Also, try to figure out which technical skills you’ll need to know (computer, epidemiologic, or otherwise) and try to learn what you don’t know ahead of time so you can spend less time on site learning these and more time on the specific research questions. Oh, and definitely take the chance to travel around Peru while you’re here. It’s absolutely gorgeous!
Hygiene and Sanitation in Xela, Guatemala

Employing the WASH Survey
By: STEPHANIE OSSOWSKI

In June of 2013, in Xela, Guatemala, my team was able to conduct the WASH survey, which sought to discover information about people’s understanding of proper hygiene practices, such as appropriate times to wash one’s hands, how people obtained and stored their water, how people disposed of their trash, and people’s general hygiene practices. Through the WASH survey, we were able to learn more about the methods, beliefs, and knowledge of the local Guatemalans. We were also able to make direct observations of kitchens and latrines, in order to further understand the environment, in which these people live. I was able to participate in conducting this survey by selecting random homes and directly interviewing the female head of the household.

The kitchen of a local Guatemala family, who was surveyed – Taken by Stephanie Ossowski

Public Health Significance

My practicum involved several of the Public Health Essential Services (PHES), including diagnosing, investigating, informing, educating, empowering, mobilizing, developing policies and plans, linking, assuring, evaluating, and conducting research. Research was the most relevant PHES used during my practicum. Our team adapted the WASH survey to better fit the population at Xela, Guatemala. Through the survey, we were able to research the major hygiene and water issues that the people of Xela dealt with daily. Hygiene practices play a crucial role in disease contraction. If unhealthy hygienic practices can be avoided or improved, the risk of disease, especially parasitic, viral, and bacterial infections, can be reduced. In Xela, we will be better able to develop beneficial programs in the future with the data obtained from the WASH survey. We discovered that overall, individuals surveyed obtained their water from an untreated well with a pump. Many did not fully know how to prevent against infectious diseases. Others thought their community had a considerable problem with trash disposal. By discovering significant issues in the population, we will be more capable of providing solutions to these problems, eventually leading to a reduction in infection and an increase in overall health.

The kitchen of another local Guatemala family, who was surveyed – Taken by Stephanie Ossowski

Traveling Abroad

• This practicum allowed me to develop my Spanish, so that I became more adept in comprehension and conversation.
• The beauty of the terrain and culture of Guatemala were awe-inspiring experiences that I will not forget.

Encouraging Sustainability for Future Trips to Guatemala

• It is very important that this project continue to grow in sustainability. Future groups can use the data obtained from this survey to help better serve Guatemalans in the future.
Taking a closer look at the community of Xela

By: Gabriela Villanueva

The rural community of Xela, Guatemala is a site that UTHSCSA medical students have been serving in collaboration with Woodland’s Baptist Church for 3 years. Yet very little has been done to better understand the patient population and their needs. For this reason we decided to assess the community’s current water sanitation and hygiene practices and knowledge.

I was involved in the adaptation, translation, conduct and analysis of the WASH survey. We collected 70 surveys from the community and also built partnerships within the community. The data is still being analyzed and we are working on the last part of our project. We aimed to provide an overall picture of the community so that the next team can build a proper education program that will serve the community in the best way possible.

Big Decisions: Las Buenas Decisiones

- In addition to our WASH survey we also implemented the Big Decisions Curriculum to young girls at Casa Hogar Luis Amigo which showed to be a complete success!
- The team saw about 200 patients in a week.

Diagnose and Investigate

A team of medical students have been conducting medical mission trips to the city of Xela, Guatemala for the past three years. Beyond providing primary care and health education, very little had been done to understand the health needs of this population.

Diagnosis

Data gathered from past trips highlighted a higher frequency of gastrointestinal diseases as the chief complaint and diagnoses.

After our team held clinic for an entire week, where we saw much of the community and recorded chief complaints and a list of diagnoses, GI problems again emerged as one of the chief complaints.

Investigate

Based on this information, we decided to assess the environment and community hazards that may be precipitating these diagnoses.

For the week following clinic we implemented a Water Sanitation and Hygiene (WASH) survey to look further and look into the following possible issues:

1. Current hygiene knowledge and practices, like washing hands
2. Current water sanitation knowledge and practices, like water boiling or chlorine usage
3. Current water supply and usage
4. Current latrine use

The information will be analyzed to explore factors that may be affecting the community’s health.

Advice for Future Practicum Students

- Always keep an open mind
- Sometimes you get to learn a lot from the experiences you least expect
- Enjoy your time! This is a great opportunity to both learn and have fun!
Multi-Drug Resistant Tuberculosis - Philippines

Development of Multi-Drug Resistant Tuberculosis (MDR TB) in Roxas City, Philippines

By: Lilalyn Punsalan

I was based in Roxas City for my practicum, which is a city in the province of Capiz in the Philippines. I worked with the Provincial Health Office (PHO) and was involved with the local MDR TB clinic located at the City Health Office (CHO).

Due to lack of resources, there has been no formal studies conducted to assess the development of MDR TB in the area. I tested the hypothesis that the development of MDR TB was a result of private physicians who were not doing directly observed therapy (DOT).

My responsibilities included data mining patient charts (all charts were in paper format) and interviewing the MDR TB patients regarding treatment histories. Using STATA, we found that the development of MDR TB was significant in patients who failed initial treatment with a private physician and that the odds of developing MDR TB was over 6 times more likely!

The PHO was given an electronic compilation of all the data and a formal paper with all detailed findings. The data was presented to PHO staff in a powerpoint format.

Public Health Significance

This practicum encompasses a multitude of the 10 essential public health services. In regards to my responsibilities, my focus was on the evaluation and research aspects of the essential services. My focus on research helped establish a springboard from which the PHO could start to assess the effectiveness of the local implementation of the National Tuberculosis Control Program (NTP). Although the data gathered and conclusions may have been intuitive, this practicum re-enforced the importance and need to have an evidence-based approach to public health.

The implementation of the NTP focuses primarily on the monitoring and linkage aspects of the essential services. Patients suspected of TB are referred to the CHO. It is there that they are then triaged to either the TB clinic or the MDR TB clinic. Those who are being treated at the MDR TB clinic are linked to services such as local housing and transportation, which are often barriers that cause patients to default in TB treatment. Completion and adherence to therapy is greatly stressed and enforced as much as possible by the local PHO.

Special Events / Duties During Your Practicum

- Data mining of multi-drug resistant tuberculosis patients and the compilation of this data into an electronic format
- Participation in a local TB Symposium targeting the implementation of the public-private mix for DOTS (PPMD) model

Lessons Learned / Advice for Future Students

- “The most important thing in communication is hearing what isn’t said” – Peter Drucker. Nonverbal communication is key – be creative and flexible in how you communicate with others
- Be culturally sensitive – every community has its own way of doing things and its own limitations. Be willing to understand it and work alongside the people. Stay humble and observant.
For more information regarding The University of Texas School of Public Health, Office of Public Health Practice and the practicum program, please visit: https://sph.uth.tmc.edu/practicum/