Public health historian Socrates Litsios has called John Black Grant a “twentieth-century public health giant,” yet one who faced an “almost constant struggle to get others to accept his ideas,” as do many progressive public health workers today. Uniting Grant’s many contributions to the health of countries around the world were his beliefs that medical care should be integrated with public health services, and that medical students should receive field training in communities outside the traditional hospital setting.

Grant’s own MPH training at the newly established Johns Hopkins School of Hygiene and Public Health enabled him to understand the broad social and economic determinants of disease as well as its microscopic pathogenesis. At the Rockefeller Foundation, he spent his career advocating that the planning and development of health services be considered as part of community development involving health, welfare, economic, and social services.

Today’s Grant Scholars continue in his footsteps by partnering with a broad range of NGOs, ministries of health, non-health government agencies, and community health care facilities. In 2011, nineteen Grant Scholars gained research skills, host country contacts, and hands-on experience in eleven developing countries, the U.S., and Japan. Their efforts helped to expand the reach and improve the quality of existing programs by conducting surveys and evaluations that determine the burden of disease, need for services, and future direction of prevention and treatment efforts. Their projects dealt with areas such as child acute respiratory infection management, second-hand smoke exposure, socio-demographic risk factors for malaria, and a variety of services for refugees as well as AIDS and cancer patients.

The field experiences made possible by the J. B. Grant Scholars program are an essential component of the Johns Hopkins MPH degree. By ensuring that students have the opportunity to apply their knowledge and skills in real-world settings, the Grant Scholars program lays the foundation for tomorrow’s public health professionals to make the best possible impact on global health.
TABLE OF CONTENTS

THE HEALTH AND HUMAN RIGHTS OF REFUGEES AND MIGRANTS

4 ..................  **M A R Y  C H A N G:**  Assessment of Social Action for Women's Health Services for the Thailand-Burma Border Migrant Community
(Field Research)

Faculty Mentor: Courtland Robinson
Location: Thailand

6 ..................  **C A T H R Y N  C H R I S T E N S E N:**  The Role of Primary Care Systems in Peace and Reconciliation: Village Health Works, Burundi
(Service-oriented)

Faculty Mentor: Anbrasi Edward
Location: Burundi

(Field Research - Group Award)

Faculty Mentor: Shannon Doocy
Location: Lebanon

12 ..................  **K I M  D A M:**  Building Local Capacity to Document the Health Impact of Human Rights Violations for Migrant Workers in Kuala Lumpur, Malaysia
(Field Research)

Faculty Mentor: Courtland Robinson
Location: Malaysia

(Field Research-Group Award)

Faculty Mentor: Alain Labrique
Location: Nepal
Evaluating Health Needs and the Impact of Interventions

18. **Lauren Spigel**: Access to Sexual and Reproductive Health Information and Resources: In-depth Interviews among Youth Ages 15-25 in Nicaragua
   (Field Research)
   Faculty Mentor: Alain Labrique
   Location: Nicaragua

22. **Jaya Gupta**: Assessing Impact of Double Fortified Salt Supplementation in Reducing Anemia in Preschool Children in Rural India
   (Field Research)
   Faculty Mentor: Parul Christian
   Location: India

24. **Shalvi Gupta and Anju Ranjit**: Surgical Needs of Nepal: A Population-Based Survey
   (Field Research)
   Faculty Mentor: Adam Kushner
   Location: Nepal

26. **Alexander Jenson**: Quality of Drug Distributor Interaction as Assessed by Mass Drug Administration Coverage in Treatment of Trachoma in Rural Tanzania
   (Field Research)
   Faculty Mentor: Sheila West
   Location: Tanzania

28. **Jamil Kasmani**: Quality Improvement Project on the Effective Implementation of the Medication Reconciliation Process at Tawam Hospital, Al Ain, U.A.E.
   (Service-oriented)
   Faculty Mentor: Gerard Anderson
   Location: Al Ain, United Arab Emirates

   (Field Research)
   Faculty Mentors: David Sullivan and David Sack
   Location: Bangladesh

** Indicates recipient of John Black Grant MPH Field Experience Grant.
Armed conflicts, human rights violations, and poor economic conditions have created immense turmoil in Burma over the past several decades. This has caused waves of refugees and migrants to flee to surrounding countries, especially Thailand. The Burmese migrant population in Thailand alone is estimated to be 1.45 million individuals and comprise 5-10% of Thailand's economic workforce. Migrant communities have been established in Mae Sot, a district along the western Thailand-Burma border. Many migrants settle or pass through this town because it is a well-known path to cross from Burma to Thailand.

Social Action for Women (SAW) is a community based, non-profit organization dedicated to providing health, education, protection services, and advocacy for migrants along the Thailand-Burma border. Two of their initiatives are the Mobile Medical Team (MMT) and evening medical clinics, which were created in 2010. The MMT is a mobile medical team that travels to the migrant communities weekly and hosts free clinics. Patients are given antibiotics, vitamins, birth control, and other medications, if necessary.

There is a need to review medical records and document the health needs of the migrant communities. Based on this, SAW will be able to plan future strategies to improve individual and community health. The purpose of this project is to conduct an assessment of the disease burden in the migrant community and provide an evaluation that SAW can use for future funding opportunities.

During my trip, I conducted background research on the migrant community through reading available literature, talking with knowledgeable community members, observing MMT activities, and participating in the medical evaluation. I created a database for the digitization of medical charts after reviewing de-identified data and started data entry. I was able to conduct a preliminary analysis of several hundred charts, and the results will be used for an upcoming grant proposal for SAW.

Fieldwork experience gave me the opportunity to learn how to troubleshoot issues on site. No matter how much pre-trip preparation there is, there will be crucial issues (cultural, language, or systems issues) that prevent the project from starting. These problems have to be resolved through in-person communication, building a strong rapport with the host organization, and being resourceful on site.

Without the travel award, this experience would not have been possible. I am thankful to have this opportunity to not only develop public health skills, but to contribute to an amazing organization that advocates for health and human rights of a vulnerable population.
**Introduction:**

My fieldwork was undertaken in partnership with the NGO, Village Health Works, to understand, document, and maximize its role in promoting post-conflict reconciliation as a non-health dividend of its work. Prior to departure, I completed a literature review to understand the existing research on how health care organizations have impacted peace-building in other post-conflict settings and to understand how such efforts are measured.

**Background:**

Village Health Works is a community-based organization founded in 2006 by a Burundian American, who had fled the genocide while a medical student and wished to return and contribute to rebuilding his home community. The organization has now grown to include inpatient and outpatient care serving a catchment area of 200,000 patients, including many returning refugees. It now has over 260 people on payroll, many of whom are community health workers. In its own words, VHW is an organization that “believes in the transformative power of dignity in healing patients, communities, and societies.” Its vision is to become a major training center for the country and to provide a model of care that challenges the status quo of detaining or turning away patients who are unable to pay.

**Fieldwork:**

My first several days in Bujumbura and Kigutu were spent meeting with the country leadership of Village Health Works and several people outside the organization who have experience managing and evaluating peace-building efforts. The majority of my time was dedicated to key informant interviews with past and present community leaders, representative community members, recent-
ly repatriated refugees, various staff members, and government officials. I also conducted approximately ten focus group discussions, with participants divided into groups of men and women at the suggestion of the staff. Participants in the focus groups included community health workers, groups of community residents who had lived in the village for many years as well as those who had returned recently from the refugee camps in Tanzania, and groups of VHW staff, including the agricultural workers, security, teaching, and clinical staff.

**Preliminary Findings:**

I am currently organizing the themes that emerged from my qualitative research, documenting these findings, and identifying whether there are indicators or programmatic lessons that could have validity elsewhere. My main observations are: 1) That the clinic has helped create a virtuous cycle of caring through which reconciliation is taking place. 2) That there are myriad mechanisms for this effect including: a shift in health explanatory models away from social attributions such as poisoning by neighbors; the role the clinic plays in inspiring helpfulness and collective problem solving, such as in carrying a patient or providing childcare; the promotion of empathy and listening through routine interactions enabled by the organization; 3) That the clinic’s contribution to community healing is greatly enhanced by an integrated model, which combines health services with economic and agricultural co-operatives, adult and child education, food security initiatives, and music and cultural programs.

**Future Directions:**

I have met with Burundian and U.S. leadership of the organization to share my research. I am currently working on a paper that synthesizes the result of my literature review and fieldwork. I have been invited by the organization to continue this work and become more involved in their clinical and public health program planning. We are exploring grant opportunities that would allow me to take on this role. I am very grateful to the JHSPH field grant award committee for its support.
Thanks to the support of the MPH Global Health Field Experience Fund, I was able to travel to Lebanon and work with Caritas to research sexual and gender-based violence (SGBV) issues. Specifically, my classmates and I partnered with Caritas Lebanon Migrant Center, a branch of the organization that has assisted over 10,000 migrants (including refugees). CLMC has a wide variety of activities, one of which is providing support to survivors of SGBV, including psychosocial interventions, shelters, and medical and legal assistance. The organization has had a partnership with JHSPH dating back several years, and requested technical support for this project. My personal connection to the region began in college. I majored in the political science of the Middle East, and studied in Egypt. At that time I had the opportunity to visit Lebanon, and was struck by the vibrant culture, physical beauty of Beirut, and the warm hospitality of my hosts.

As a result of civil war, Lebanon now hosts around 1 million Syrians. This is a serious strain on services in a country whose population is slightly less than 4.5 million. For several reasons, Syrian refugees are particularly vulnerable to SGBV. Due to the large number of refugees living in settings such as tent settlements and unfinished buildings, there is a lack of physical security, such as the ability to close and lock doors, or lighting at night. At present, Syrian refugees have a quasi-legal status in Lebanon (they are required to return to Syria every 6 months), and concerns about jailing, fines or deportation dissuade refugees from reporting crimes to the police. Finally, the breakdown of intricate community structures caused by forced migration has led to the failure of internal mechanisms of mediation and justice. These and other reasons inherent to forced migration, are the impetus behind CLMC’s work in this field.

Our project in Lebanon was two-fold. Caritas wanted to improve and expand the services offered to Syrian survivors of SGBV. Our first task was the creation of focus group scripts designed to be delivered to religiously and socio-economically diverse groups of Syrian women. The topic of the focus group was barriers to access and use of SGBV services. By exploring these questions, we hoped to discover more about what type of programming was desirable and acceptable, and to see what could be changed to improve use of existing services. Our second goal was to create a brief survey to be appended to new client registration forms. This survey focused on knowledge of services for SGBV, and was designed to identify gaps that could be ameliorated by promotion or education. This survey also included questions on cell phone use, as mobile health technology has been earmarked as a potential outreach tool for this population.

Both the focus group scripts and survey questions were designed through an iterative process based on existing literature and interventions, as well as the input of CLMC staff on culturally competent
lines of questioning. For example, we had initially excluded questions relating to men as victims of SGBV, but restored these questions after an organizational contact suggested that this type of crime had been reported with increasing frequency in the last few months. There was also extensive revision of the Arabic translation to pick phrasing that was appropriate and recognizable. After designing these materials, our group traveled to several CLMC to train the psychologists and social workers who would be delivering them. This hands-on element was crucial to understanding how our surveys would fit into the work-flow of registering refugees, and allowed the survey to be altered to be minimally disruptive to operations.

I am very grateful for the opportunity to strengthen my research skills and gain deeper knowledge of SGBV issues and humanitarian assistance. Far more than that, I am thankful for the chance to be of assistance to the organizations and people who are aiding refugees in a truly paradigm shifting crisis. My interest in public health is underpinned by a belief that the field is inherently tied to solidarity and compassion. This experience was an opportunity to see the potential of these qualities in action.
Overall, I had a wonderful experience in Lebanon and with Caritas. We got off to a little bit of an interesting start. When we arrived we found out that our housing was not yet secured and that Caritas would not be providing our housing. But with the help of Caritas staff the next day we were able to secure an apartment. We lived in an ethnically Armenian neighborhood which ended up giving us another cultural perspective. The apartment and the neighborhood worked out great.

We started work the following Monday. I was set to work on finalizing a report that had been written previously on the legal implications of children of domestic workers in Lebanon. I realized quickly that the out of country person who recruited us did not actually have an understanding of what the organizational needs really were. So, I worked with my in country supervisor to determine what their needs were. It turns out that they were lacking information about how particular migrant groups were treated and how different embassies addressed the issues. Over the course of the next week and a half I conducted four key informant interviews at the consulates of Kenya, Ethiopia and Nepal and at the Philippine embassy. I was able to collect information for Caritas about what the embassies are doing in these cases.

Second, they needed help developing stories for their report. I was able to visit a shelter for women who are awaiting legal proceedings. In order to live in the shelter, as opposed to in the detention centers, these women have to agree that they will not the leave the shelter. It remains locked at all times. Some of the women had been in the shelter for days and some for years. Many had children living with them. I was struck by how young everyone looked. Really they were my peers; it just makes you appreciate how lucky you are to have been born where you were. So I talked to them about their experiences in Lebanon and in the shelter. They laughed and expressed concern for me when I told them I was 29 but am not married. Other Caritas staff members collected individual stories and I am in the process of anonymously writing them up for their report.

I also visited a K-3 school that Caritas opened for children of domestic workers. Children of undocumented workers are not able to attend school because they cannot get the necessary paperwork from the government. So many children were left at home or with friends or wandered about while their parents were at work. The school was inviting and happy the way that elementary schools should be. Their staff is so committed to providing the best education possible. The director of the school told me that their kids absolutely have to be better prepared for regular school in order to have a chance at getting in.

After the end of my research and visits I was able to develop a survey which can be used by staff to determine not only what women know about the legal piece but also what they know about access to medical care and schools for their future children. Finally, what they needed was something they could hand to women that would let them know what process they needed to follow in order to have their child registered with the country or with the embassy. This is critical in order to make sure that every child obtains a nationality. My handout has already been handed in and edited.

**Dawn Pepin: Women and Children in Crisis: Lebanon**
(Field Research - Group Award)

**Faculty Mentor:** Shannon Doocy

**Location:** Lebanon
During the winter intersession I had the opportunity to travel to Lebanon to conduct field research on sexual gender-based violence and mobile phone behavior among Syrian refugee women. We worked with Caritas, a NGO in Lebanon. Our project consisted of two parts.

**Part 1**

Focus Groups – to solicit attitudes towards SGBV, resource knowledge, resource access and resource utilization patterns. Both Lillian and I traveled to various sites across Lebanon to work alongside psychologists to set up focus groups. In these focus groups Syrian refugee women retold stories of women being forced into early marriage, cases of sexual assault and rape. There were general concerns over the lack of community support post-sexual assault or rape. We are currently in the process of collecting this qualitative data and organizing it into general themes that Caritas can then use to improve their resources.

**Part 2**

Survey – developed a survey to solicit knowledge and attitudes towards SGBV services and assess mobile phone use behavior. We trained 10+ social workers to administer our surveys in sites in the North, East, South, West, and Central areas. We are currently in the process of gathering survey data. We also had the unique experience of presented our project at the UNHCR’s SGBV Task Force Meeting, in which they expressed interest in the preliminary data.

In addition to our research project, I got the chance to visit a tented settlement camp near the Lebanon-Syria border. I still remember the images vividly. We were invited into one family’s tent. The head of the family was in his early 30s and was only one year away from finishing law school in Syria. He now spends most of his time trying to find odd jobs that do not pay enough to support a family. One of the girls in the tent who I figured to be a daughter was actually the wife at the age of 13. There were numerous children in the tent, which was made of sown together tarps. You could see dirt on the children’s face and half of them were coughing and sick. None of the children were going to school and many were in fact working.
He was just arrested,” a staff member relayed to me as I sat in the office of Tenaganita (Women’s Force), a non-governmental organization (NGO) in Malaysia focused on protecting and promoting the rights of women, migrants and refugees that has since 1991 provided assistance to over 20,000 migrant workers. She was referring to a migrant worker who, minutes ago, had just been in the office to seek assistance and, while on his way home, was accosted by authorities with no justification. The migrant worker is one of approximately 1.9 million foreign workers in Malaysia—not counting the potential 500,000 to 1 million undocumented workers (IOM 2009). His case was not unusual—migrant workers are often the target of unwarranted document searches, coercion, bribes, and deportation, according to Tenaganita. Migrant workers not only face the potential occupational dangers of manual labor and domestic work but also increasingly succumb to severe human rights violations and have little or no means of remediying those violations. My MPH Field Experience was part of a larger Johns Hopkins Bloomberg School of Public Health (JHSPH) research project by Dr. Courtland Robinson, which focused on building the local capacity to document the health impact of human rights violations for migrant workers in Malaysia.

Located just outside of the city center of Kuala Lumpur, Tenaganita is a relatively small NGO, but its advocacy and work span the country. As a destination country for trafficking, Malaysia warrants specific anti-trafficking interventions focused on labor. This aspect contrasted with my experience in Vietnam, where I worked for over two years on sex-trafficking issues among women and girls in the rural border regions. Labor trafficking in Malaysia affects both male and female populations, but some sectors are dominated by a specific sex, for instance males in construction and females in domestic work. According to Tenaganita, several factors drive the migration of labor to Malaysia, including perceived economic opportunities and unstable political and economic situations in migrants’ home countries. However, once in Malaysia, migrant workers are faced with conditions that depart from what was promised in contracts, including a lower salary, long hours, withheld pay or a completely different job.
The Health and Human Rights of Refugees and Migrants

For two weeks, I worked closely with Tenaganita staff to assist in the conduct of Key Informant Interviews (KIIIs) with key stakeholders such as service providers, employers and government officials. My original proposed project shifted as project required assistance in completing KIIIs before conducting a training for community case managers. The goal of KIIIs were to gain a stronger foundation of the landscape in Malaysia to which migrant workers are perceived and the extent of their human rights violations before going into further stages of In Depth and Focus Interviews. The KIIIs were also key to understanding the areas of need (if any) and identifying potential risk factors associated with migrant health. To address the diversity of migrant workers in Malaysia, Tenaganita staff is multi-lingual and multi-cultural. At any given point in the organization you can hear two or three different languages being spoken. Tenaganita serves migrant workers from countries such as Indonesia, Myanmar, Bangladesh, Vietnam, and India. A difficult challenge for the organization is overcoming language barriers for instance, without a Vietnamese translator or speaker, their outreach with Vietnamese workers is limited.

As a result of the constant walk-ins and the juggling of various programs at Tenaganita, I learned that flexibility was crucial. Aware of my position, as an outsider with limited time at the organization, I made the proactive steps to build relationships with staff members to learn from their work including successes and challenges. For the KIIIs, I worked with staff in monitoring their interviews, making sure proper forms were being utilized, assisting with the transcribing process, and coordinating consistent communication between Tenaganita and the JHSPH research team in Baltimore, MD. Differing time zones and schedules revealed the challenges of implementing a qualitative research project, however the enthusiasm and cooperation of Tenaganita staff, despite having large case loads and projects, was unwavering. From this experience, I was reminded the need for great flexibility, strong leadership, and understanding of how small NGO's operate in order to build upon their strengths and overcome limitations. Tenaganita's greatest strengths were their strong networks with the community, their extensive working knowledge of network of migrant advocates, and their emphasis on building the evidence-base to inform their interventions, campaigns and programs.

I conducted training for the staff to review their previous training on qualitative methods and KIIIs, and to evaluate as a group the process thus far. The staff shared with one another their challenges and positive aspects of the preparation of interviews (including scheduling and requests), the interview itself, and the post-process of transcribing and documenting the interview. One of the greatest challenges was the hesitancy of interviewees in more “public positions” such as govern-
ment officials in conducting interviews. Fear or hesitancy to share thoughts about the migrant population (despite the anonymity of interviews) began to reveal the extent to which silencing occurs when it comes to discussing the treatment of migrant workers in Malaysia. The group worked collaboratively to identify ways to overcome these challenges. I also worked with another staff member to assess the database questionnaire in its ability to comprehensively document Tenaganita’s 1000+ cases (occurring from 2008-2013).

On my last day with the organization, I conducted an art-based workshop with girls and women at the Tenaganita shelter for migrant women. Having spent most of my time in the office working with staff and volunteers, I looked forward to working directly with the migrant community. The ages of the women and girls at the shelter ranged from 10 to over 50 years old. I was also mindful that there were to be at least two or three languages spoken. I facilitated an identity activity where they were asked to reflect on their roots, their identity, and what they dreamed for the future. I had done this activity at a shelter in Vietnam for trafficking survivors but in Malaysia the make-up of the shelter was drastically different. Despite being from Indonesia, Philippines, Cambodia, and Bangladesh, the women and girls shared similar struggles in migrating for work and improved economic opportunities. When asked what their future dreams were, a prevalent theme arose – they wanted to go home.

I was taken aback by the simplicity and complexity of their answer. They had originally migrated to Malaysia in hopes of achieving greater economic opportunities and for ideally, a better future. But instead, their experience had left them wanting nothing but to return to the life they had before. Building the evidence-base is crucial to protecting the human rights of migrant workers, especially women and girls. One of the women in the shelter expressed “I’ve never been asked to do anything like this before.” To never been asked what their dreams are, is in itself a violation of human rights. Working with Tenaganita has expanded my understanding of the complexity of conditions in which migrant workers navigate. The experience fuels my passions in ensuring that all migrants, particularly women and girls, have the opportunity to thrive and reach their greatest potential and dreams.
In January 2014, Arielle Slam, an MPH & MBA candidate at Johns Hopkins School of Public Health, spent 3.5 weeks in Kathmandu, Nepal at Maiti Nepal, a non-governmental organization which works to reduce the trafficking of young Nepali girls. The goals of the project were threefold. Firstly, the pilot project distributed communication technology so as to increase two-way communication between the outreach workers (Naanis), transit homes and headquarters at Maiti Nepal. Secondly, the project sought to empower outreach workers (Naanis) to initiate more missing person reports and to expedite the reporting process. Lastly, the project sought to serve as a pilot to determine the feasibility and efficacy of an expanded mobile-based reporting network for Maiti Nepal.

Maiti Nepal was formed in 1993 to combat trafficking of girls and women in Nepal. It also serves as a rehabilitation home for woman and orphaned children. Maiti Nepal is headquartered in Kathmandu, where the majority of its women and children being rehabilitated live. It is also home to all operations including the executive team, legal, accounting, and program staff. It has outposts stationed at the main entry point to Kathmandu, as well as at borders with China and India. At these stations, the Maiti Nepal check post guards monitor vehicles for signs of trafficked women. They also actively search for reported missing women. Additionally, there are transit homes throughout the country where trafficked women are brought for shelter.

The Naani project is a project of Maiti Nepal started in June 2011. The Naanis (Name of Activist for Antitrafficking National Initiative) serve as the grassroots prevention force for Maiti Nepal. There are currently 16 Naanis. They have been appointed with the responsibility to coordinate the Village Development Community (VDC) level programmes.

The Naani Mobile-Phone Reporting Pilot rolled out over the 3.5 week period included: 1) research and procurement of mobile phones, solar chargers, service plan and accessories; 2) development of missing person report; 3) in-person two day training of all Naanis; and 4) training of headquarters’ staff.

1: Research And Procurement Of Information Technology

After conducting extensive research on the technology, the pilot project procured the following items for each Naani girl through the financial support of the Friends of Maiti Nepal (FOMM).

- a smartphone (Samsung Galaxy Young S6312)
- a solar charger (Solio Classic 2)
- a rubber cell phone case and screencover
• carrying satchels (2)
• AC power charger
• two USB and micro USB cables
• headphones with built in mic
• a monthly cell phone plan
• a Gmail address (free of cost)

To provide on-the-ground technical assistance after the researchers left Nepal, the pilot project collaborated with Deerwalk, a software development company with a large office in Kathmandu. They identified two staff to support the project. These staff were introduced to the Naanis, trained in the technology, and provided technical support guidelines. Deerwalk maintains a Google spreadsheet of all technical queries from the Naanis. Deerwalk also manages an additional phone purchased by the project that serves as a sample phone for use during technical assistance calls.

2: Development Of Missing Person Report

The missing person report was developed in Formhub for use in Open Data Kit Collect on the Naanis’ mobile phones. Open Data Kit Collect (ODK Collect) is used on Android phones and allows for collection of multimedia data including video, location, and handwritten information. The platform allows collectors to gather data while off-network, and will automatically sync the data once a connection (3G or WIFI) is established. This is an important feature for the Naanis, given their remote locations.

After interviewing key divisions at Maiti Nepal (executive, legal, program and accounting) the following protocol for submission of mobile-phone reporting of missing persons was developed and thoroughly vetted with Maiti Nepal leadership.

• A family or friend of a missing person comes to a local Naani to report the missing person.
• The Naani takes a detailed record of the case using the missing person reporting form on her Samsung Galaxy Young.
• The Naani submits the completed report through her phone, which is added to the online formhub database.
• An html email summarizing the data for an individual case report will automatically be populated and sent Maiti Nepal’s legal department, the Naani Program Officer, the Maiti Nepal executive director, the Maiti Nepal president, and all transit homes. These recipients will use the html report as their sole source for initiating a search. They will not access the missing persons database for these purposes.
• Legal will print the html file for their paper records, and make any additions or corrections to the paper form.
• Legal or the Program Officer will follow up with a Naani via phone or email if they have additional questions.
The form questions were initially developed based on the existing missing report questionnaire and International Person Finder proposed standards. They were subsequently reviewed by all teams at Maiti Nepal, and numerous revisions were made. The form, consisting of nearly 100 prompts, asks detailed information about the missing person including physical characteristics, domestic situation, and any known details of the event. Questions ask for multiple choice responses, text entries, images, GPS location, signatures, or audio files. The form also utilizes skip logic and data constraints to ensure quality data.

3: In-Person Two Day Training Of All Naanis

During the two-day training, Naanis were divided into small focus groups to discuss how they believe they can best use the technology provided. Following the focus group, Arielle Slam, with the support of other MPH students visiting Maiti Nepal, conducted tutorials in how to use a phone, internet, email, and solar chargers. During the second day of the training, Arielle led the Naanis through how to use the new electronic missing person report. This included instruction, breakout sessions, and simulations. Each Naani was provided with a fully translated training manual.

4: Training Of Headquarters’ Staff

Headquarters’ staff were also trained in the use of the phones and the mobile-phone reporting platform. These trainings were conducted in via an overview session for all staff, small group sessions for targeted teams, and one-on-one trainings for leadership. Since return to the United States, Arielle has continued to monitor the missing person reporting system and the technical support requests. Friends of Maiti Nepal hope to return in the summer to further evaluate the pilot and to determine next steps.
**Lauren Spigel: Access to Sexual and Reproductive Health Information and Resources: In-depth Interviews among Youth Ages 15-25 in Nicaragua (Field Research)

**Faculty Mentor:** Alain Labrique  
**Location:** Nicaragua

**Introduction:**

Before beginning the MPH program at the Johns Hopkins School of Public Health, I served as a Peace Corps Volunteer in Nicaragua from 2011-2013. While there, fellow volunteers and I began laying down the groundwork to create ChatSalud, an mHealth initiative that uses SMS to connect Nicaraguan youth to sexual and reproductive health (SRH) information and local resources through their mobile phones. Through personal experience living in rural Nicaragua, we realized that (1) youth need an anonymous means to access SRH information and (2) cell phones are absolutely everywhere. We believed that mobile phones could help fill a gap by connecting youth to information and to existing local resources. After scouring the literature, it became clear that there was little data regarding youth access to SRH services and information in Nicaragua. We needed this data to inform the development of ChatSalud and to advocate for support from the Nicaraguan government.

**Objectives:**

Working with Dr. Alain Labrique, my adviser and an mHealth expert, and with guidance from Dr. Caitlin Kennedy, qualitative research expert and fellow Returned Peace Corps Volunteer (RPCV), we designed a qualitative study to assess the following:

1. Youth access to sexual and reproductive health services;  
2. SRH information-seeking behavior; and  
3. Potential user-demand for ChatSalud

**Methodology:**

With help from my study teammates, Lindsey Leslie (MSPH ’15, RPCV Nicaragua ’11-’13) and William Jarquin, we conducted 40 in-depth interviews among youth between the ages of 15-25 in four communities located in four distinct regions in Nicaragua: Quilalí, Nueva Segovia; Terrabona, Matagalpa; Chinandega, Chinandega; and Walter Acevedo, Río San Juan. The communities chosen were selected because they are geographically and culturally distinct from one another.
and because we had a contact on the ground in each of the communities to help us recruit participants. We used a semi-structured interview guide and we programmed a demonstration of the ChatSalud system using the Textit.in mounted on an Android phone. It allowed users to interact with ChatSalud using the study team’s basic flip phones.

**Results:**

While the data is still being processed, preliminary results around the three research questions are as follows:

1. Youth Access to SRH Services:

   - “If I’m not married and I want to be with my boyfriend, I have to look for birth control in other places because if I go to the health center, everyone will find out.”  
     - 18 years old, Terrabona, Matagalpa

   - “Generally if we have a really intimate problem, we don’t want anyone else to know. In my case, I would prefer to go to a private clinic outside of Quilalí, such as in Ocotal or Estell.”  
     – 22 years old, Quilalí, Nueva Segovia

   - “When you’re young and you don’t have access to information about condoms or lubricants, or about what HIV is, having sex without protection—without a condom—is normal in Nicaragua among youth.”  
     – 25 years old, Chinandega, Chinandega

   - “When I became pregnant I got scared…I was 17 and I wasn’t using birth control because I didn’t really know about it.”  
     - 19 years old, Terrabona, Matagalpa
2. SRH Information-Seeking Behavior:

- “When we’re looking for sexual health information, most of the time we go to internet cafes, or if we don’t go there, we activate internet plans on our cell phones.”
  
  -15 years old, Walter Acevedo, Río San Juan

- “Youth mostly use the internet to look for sexual health information, probably so that we don’t have to ask someone about sexuality in person, which people don’t do maybe because of embarrassment. But with the internet, even though there’s a ton of information, you never know if the information is true or false.”
  
  -19 years old, Quilalí, Nueva Segovia

3. Potential User-Demand for ChatSalud:

- “It’s a shame that in this place there are so many young girls taking care of children, already with so much responsibility and they can’t go back and study. What we need is more information.”
  
  -19 years old, Quilalí, Nueva Segovia

- “Texting is kind of like my hobby. And even though we live in a really remote municipality, we like to be fancy in that each person has their own cell phone and they’re very private.”
  
  -22 years old, Quilalí, Nueva Segovia

- “I feel like ChatSalud is more safe and trustworthy than the internet because with the internet, there’s a ton of information but it’s not 100% true. More than that, I would trust ChatSalud because behind a cell phone, no one can see who I am.”
  
  -15 years old, Walter Acevedo, Río San Juan

- “It’s better because I can send a text and it’s the same information that I can find in Google and I don’t have to bother the doctors at the health center who are busy. It would give me the same information.”
  
  -15 years old, Walter Acevedo, Río San Juan
**Conclusion:**

On a personal level, the MPH Field Experience Award afforded me the luxury of being able to return to my Peace Corps community and reconnect with friends and family there. On a professional level, conducting the interviews was an incredibly academically rich experience. I hope that the data collected from this study will not only support the development of ChatSalud, but I hope that it will also support those who are eager to incorporate more youth-friendly services into the Nicaraguan health system.

Thank you to those who support the MPH Field Experience Award. Mil gracias.

Saludos,

Lauren Spigel, MPH 2014, RPCV Nicaragua ’11-’13
I am so grateful for the opportunity I received this past winter (January 2014) with the support of the MPH Field Experience Award, to return to Udaipur, India and work with Seva Mandir. As a non-profit organization dedicated to rural participatory development, Seva Mandir has over 40 years of experience. While this has made it into one of the leading implementation organizations in both Rajasthan and India as a whole, it has not been as effective in capturing the success of its programs through monitoring and evaluation.

In an effort to build its impact evaluation, I was brought onto the team last year as the program associate for research in the health division. One of my responsibilities was to renew a nutrition pre-pilot study initiated in the Alsigarh zone of the Girwa block. This study sought to test the benefits of double fortified salt (DFS) as compared to plain iodized salt (IS) to improve hemoglobin levels and reduce anemia. Perhaps more importantly, the study was an effort to test feasibility, prior to scale-up, of distributing the salt and conducting a study that would require intensive monitoring.

When I initially developed the study, my foresight as a researcher was limited regarding study design and statistical analysis. Our quantitative method was to collect two hemocue measurements at baseline and seven months later. The findings showed dramatic improvements in hemoglobin levels and anemia reduction in 25% of preschoolers who received iodized salt and 33% reduction in those who received double fortified salt. However, the incrementally higher improvement in the intervention group could not be directly attributed to the DFS. I hypothesized that the additional monitoring and subsequent regularity of preschool functioning may have contributed to the improvement overall across both groups.

Statistically, there was no significant difference in hemoglobin levels or anemia reduction between the DFS and IS group. However, there was a significant difference demonstrated over the seven-month period for both groups. While these findings were limited by a small sample size, they confirm that the preschool initiative, when monitored thoroughly, is a strong nutrition intervention on its own.
While in India I unpacked further the cause of these longitudinal effects. I met with the Women and Child Development (WCD) unit to discuss the nutritional plan implemented at the early childhood preschools. I learned that preschoolers were receiving deworming medication in addition to what was already a nutritious midday meal. The findings show that the preschools were open more often, with higher attendance, as a result of the study monitoring. It was beneficial for Seva Mandir to know that the preschools were, in fact, a success. What the study illuminated, however, was the poor performance of many of the preschools and the need for improved monitoring.

I presented the findings to the CEO, Director of Programs, Director of WCD, Director of Health, and all study-affiliated staff. In simple language, without too much statistical jargon, I was able to explain the potential confounding effect of monitoring. Following the presentation, we had a conversation about how to continue. Given that DFS has already proven effective in reducing anemia through other studies without detrimental effects, the CEO suggested that it become another component of all preschool nutrition packages. To help prioritize where intensive monitoring is focused, I proposed that a grading system of the preschools be developed. The WCD is now in the process of creating a strong monitoring and evaluation component in their preschools, which will hopefully have an impact on both the health of the infants and also their education.

Finally, an important step in evaluation of the preschools was sharing the results with the preschool teachers. They were all pleased to learn that their preschools were beneficial to children and that they were helping to contribute to the improvements in health. I emphasized that not all children were benefitting, with some even demonstrating reductions in hemoglobin levels. The preschool teachers were, for the most part, aware of which children required more attention. I encouraged them to follow up at the households of these children to ensure their regular attendance. This interaction taught me a couple of important lessons. First, much of what I had uncovered through my data analysis and measurements was already known in the field. They had witnessed which children were most malnourished, whether from repeated diarrhea, hunger, or the child’s inability to walk. Second, positive feedback also encouraged the preschool teachers to improve their preschool’s performance independent of monitoring. What remains a struggle is how to treat those children whose malnutrition is beyond the scope of the preschool intervention. Seva Mandir is currently working on developing a rural outpatient facility in partnership with some pediatricians that will hopefully improve access to medical services and treatment.
I am a general surgery resident in California, dedicating this year to studying global surgery and the public health practice of international surgical care in low- and middle-income countries (LMICs). After receiving the MPH Field Experience Award, I was able to perform a pilot study for a surgical needs assessment survey in Pokhara, Nepal.

Though operative care is an essential component of health, traditionally, surgery has been under-prioritized – if not absent – in global health care. In particular, there remains a striking dearth of research to quantify the burden of surgical disease in LMICs. An important goal for global health should be to ensure that all areas of the world have access to safe surgical care for those in need.

The first population-based surveys on surgically treatable conditions in an LMIC were performed in Sierra Leone and Rwanda. These studies utilized the Surgeons OverSeas Assessment of Surgical Need (SOSAS) tool, which was developed as an initial attempt to measure the prevalence of surgically treatable disease in LMICs. With SOSAS, a population based cross-sectional survey, the authors were able to reveal a large unmet need for surgical consultations in Sierra Leone, with 25% respondents requiring an assessment of a surgical condition at the time of interview (Groen, 2012). Using SOSAS, Petroze et al determined that a total of 6.4% of Rwandans (estimated 675,000 people) currently needed operative care, with nearly 15% (estimated 1.6 million Rwandans) reporting an operative condition within the previous year (Petroze, 2013). Data from such studies that demonstrate the baseline burden of surgical disease, and supports advocacy for allocation of funds and resources within Ministries of Health, international organizations and donor agencies to for surgical care.

Because Nepal is one of the least developed South Asian countries with a gross national income per capita of US $700, it is considered a low-income country by the World Bank classification and ranked 157th of 187 countries in the Human Development Index. Given the terrain of Nepal, the majority of the population in rural areas does not have access to health care due to cost and geo-
The primary objective of this pilot study was to investigate if SOSAS is a feasible tool to be deployed in Nepal, to make necessary changes in the questions or wording and provide the basis for sample size calculation and logistical planning for a planned countrywide assessment that will help provide needed data on the unmet surgical needs in Nepal.

We performed the pilot study in Pokhara, Nepal in January of 2014. Our team consisted of me, Anju Ranjit (another Hopkins MPH student/physician and Nepal native) and a team of 18 Nepali medical interns. We collected data by utilizing MagPi using iPads, iPhones and Android devices. Data was collected from two wards of Pokhara, a rural ward and an urban ward. 50 households were surveyed with 100 individuals in total. The pilot study was a great success and we evaluated an unmet surgical need of 5% in Pokhara. Our manuscript has been submitted to a peer-reviewed journal for publication. This pilot in Pokhara demonstrated that the SOSAS population-based survey assessing surgical need can feasibly be performed in South Asia. I will perform a countrywide survey in June, and this pilot study was crucial in the organization for the countrywide survey.
The Johns Hopkins School of Public Health MPH Field Research award enabled me to return to Kongwa Tanzania to continue work I had started in 2011, supplement my capstone project, and assist the project in important practical elements of combating trachoma in the developing world. The Kongwa Trachoma Project works with the Johns Hopkins University Wilmer Eye Institute to combat trachoma, an infection of the eye caused by Chlamydia trachomatis, which is the single leading infectious cause of blindness, and the 7th leading cause of blindness overall, with 146 million active cases in 46 endemic countries. The project works to administer azithromycin to villages in the Kongwa district to prevent the spread of trachoma, and studies the effect of these treatment programs on the eradication of the infection. In addition, the project has recently incorporated surgical treatment for corneal scarring caused by repeated infections, and is offering surgery to villagers free of charge.

In the summer of 2011, with the help of three research assistants and Dr. Sheila West of the Wilmer Eye Institute, I audio recorded over 3,000 interactions of community treatment assistants (CTAs) and villagers during drug distribution. These interactions, in the local languages Kigogo and Kikaguru, were coded using a modified version of Roter Interaction Analysis System (RIAS), a system designed to quantify the performance of physicians in interactions with patients.

I returned to Kongwa in January 2014 to acquire essential supplements to my data from 2011, including surveying missing CTAs, cleaning data on CTAs assignment within villages, and obtaining and cleaning data on my outcome. This involved seeking out four CTAs who had not been surveyed in the initial phase, extensive work in the file system in Kongwa to correlate my audio recordings to actual coverage of different CTAs in distributing the medication, and working with the project’s drug distribution team to find and correlate this data. This took a great deal of my time, but will be a meaningful component of my capstone, and will hopefully demonstrate that the quality of the interaction between CTAs and villagers affects villagers’ desire to return for treatment in the future, and thus future coverage rates of drug distribution.

In addition, I assisted the project’s aim to combat trachoma by helping in evaluation of a trichiasis (corneal scarring caused by repeat infection) detection program by CTAs. Health workers were tasked with detecting trichiasis by visual inspection and questionnaire of each villager during drug distribution, but random sampling of villagers revealed many individuals with trichiasis who were missed by this screening program. My job was to find these individuals in the rural villages surrounding Kongwa and ask them questions about their experience with the screening program, to tease out if they were actually screened and why the program failed to identify their illness. In total,
I travelled to seven different villages and sought out these twenty individuals who were missed by the CTA detection program, and asked them questions regarding why they believe the CTAs failed to identify that they had the disease. The results of these surveys illustrated three key issues that reduced the sensitivity of the CTA detection program: some CTAs simply were not asking the questions, some villagers never went to receive the medicine, and thus could not have been surveyed, and some villagers simply did not report symptoms when surveyed. These results were reported to the team, and will inform changes to the trichiasis detection program going forward.

My time in Kongwa enabled me to have meaningful impact on both my own capstone project and the research of the Project as a whole, and I am extremely grateful to have been given the opportunity to return.
Jamil Kasmani: Quality Improvement Project on the Effective Implementation of the Medication Reconciliation Process at Tawam Hospital, Al Ain, U.A.E.
(Service-oriented)

Faculty Mentor: Gerard Anderson
Location: Al Ain, United Arab Emirates

Introduction

An average hospitalized patient is subject to at least one medication error per day.1 Medication errors are among the most common errors jeopardizing patient safety.2 More than a third of medication errors result from inadequate medication reconciliation during admission, transfer and discharge of patients.3 These errors can be reduced if medication reconciliation processes are in place.

Medication reconciliation is a complex process that involves a comparison of the patient’s current medication regimen against the physician's admission, transfer and discharge orders so as to identify discrepancies. Discrepancies, if any, are discussed with the prescriber, and the order is modified, if necessary. The effectiveness of a sound medication reconciliation process within and among care settings is an important component of patient safety goals.4 Tawam Hospital is a tertiary healthcare center in Al Ain, United Arab Emirates (U.A.E.) and is affiliated with Johns Hopkins. The hospital is also accredited by the Joint Commission International (JCI), complying with the commission's standards on quality of care and patient safety.5

Objective

Currently, at Tawam Hospital there are medication reconciliation processes in place. This project aims to help facilitate a review and improvement of current practices to strengthen the medication reconciliation process with the result of improved patient safety. The primary objective of the project is to establish the most efficient ways of ensuring medication reconciliation in order to reduce medication errors. This is a quality improvement project on the implementation of medication reconciliation performed universally across the hospital promoting the importance of medication safety. This is a particularly challenging project, since the clinical, paramedical and support staff hail from over 60 countries and have been trained in different systems. Effective implementation of a medication reconciliation process is also a requirement of the JCI.

Methods

A thorough understanding of the current existing practices and procedures of documenting and prescribing medications at the hospital were done. The Joint Commission International's goals on Medication reconciliation were also reviewed. As the medication prescribing and dispensing is paperless and exclusively online via a system called Cerner, the Information Technology department
at the Hospital plays a pivotal role in the execution of the medication delivery system at the hospital. At Tawam Hospital, medication reconciliation is done at admission, transfer and discharge of patients. Upon meeting with key decision makers and the departments in charge of quality assurance, pharmacy and information technology, a target of 75% compliance at the end of 2014 and 90% compliance by the end of 2015 was set.

A multi-pronged strategy was planned to achieve these goals. The primary focus was on creating awareness among clinical staff on the importance of medication reconciliation. We also elaborated on and stressed the patient safety risks due to medication errors. The awareness campaign involves presentations and meetings with individual departments. Statistics on compliance of the respective departments were presented in team meetings. An email message from the Chief Medical Officer was sent to all clinical staff as an enforcement measure. Desktop screensavers with a message on medication reconciliation were installed in computers across the hospital.

Although training of all clinical staff members on the Cerner system was done last year, with new recruits arriving, it is an ongoing process. The information technology team planned more sessions for individuals having technical difficulties in completing the process. Information technology staff were granted direct access via phone and email to facilitate the troubleshooting process.

**Conclusion**

The targets set by the project committee of 75% compliance by the end of 2014 and 90% by 2015 are both realistic and achievable. This will ensure the hospital continues to meet the JCI requirements and will in turn help to improve patient safety standards.

**Bibliography**

5. Tawam Hospital Website. Web<http://www.tawamhospital.ae/english/Menu/Index.aspx>
**Hani Kim:** Molecular Characterization of the Diversity of the Plasmodium Population in Chittagong Hill Tracks, Bangladesh and Determination of the Drug-resistant Haplotypes
(Field Research)

**Faculty Mentors:** David Sullivan and David Sack

**Location:** Bangladesh

**Background and Rationale**

While 90% of Bangladesh is considered malaria-free by WHO, the Chittagong Hill Tracks (CHT) have been endemic for malaria, with a prevalence rate of 13 percent. Chloroquine (CQ) was replaced with artemisinin combination therapy (ACT) as the standard treatment for severe malaria in 2004 due to the worldwide spread of CQ drug-resistant Plasmodium falciparum. Surveillance of malaria “hot-spots” and preventing transmission from asymptomatic carriers are crucial to achieve the malaria elimination goal. Moreover, adverse health effects of asymptomatic malaria on susceptible populations such as pregnant women and children are common but poorly understood.

The main objective of my 8-week engagement at the International Centre for Diarrheal Disease Research, Bangladesh (icddr,b) was to train a Senior Research Officer in the use of molecular techniques in malaria surveillance, which was established in Bandarban, CHT in 2009, by icddr,b and Johns Hopkins University. Specifically, we characterized the asymptomatic malaria cases that were confirmed by microscopy and rapid diagnostic test (RDT) for P. falciparum, but were negative by quantitative real-time polymerase chain reaction (qRT-PCR), a laboratory technique used by molecular biologists to analyze DNA samples. Secondly, we examined the prevalence of the three CQ-resistant P. falciparum haplotypes (a set of DNA variations, or polymorphisms, that tend to be inherited together) as evidence suggests that CQ-sensitivity is returning in some malaria-endemic countries since the introduction of ACT.

**Materials and Methods**

23,372 individuals and 4,782 households were captured during the demographic surveillance from 2009 and 2012 in two unions in Bandarban Sadar sub-district in the CHT, where active and passive surveillance were conducted. Blood samples and information related to symptoms of malaria were collected from the participants. DNA was extracted from the filter-paper blood and analyzed for the presence of P. falciparum genes, Pf18s, and Pfcytb by qRT-PCR. Samples that contained Pf18s or Pfcytb were screened for the presence of the three haplotypes of P. falciparum chloroquine resistance transporter (Pfcr) gene – CMNK, CVIET and SVMNT. The results were compared among the symptomatic cases, asymptomatic cases and submicroscopic cases of malaria.
Results

We observed that CQ resistance remains highly prevalent in the CHT with the proportion of the resistant haplotypes to be 84 percent, 54 percent and 69 percent in the symptomatic malaria, asymptomatic malaria and submicroscopic malaria groups, respectively. Interestingly, Pfcrt SVMNT, which is not common in Southeast Asia, and had never been detected in Bangladesh, was detected in 28% of all resistant cases, and 69 percent of the submicroscopic malaria cases. These findings suggest that a distinct population of CQ-resistant P. falciparum may be circulating in Bangladesh, especially among the carriers of submicroscopic malaria.

Next Steps and Lessons Learned

Further studies are needed to confirm the findings by gene sequencing, and to validate them in a larger sample set. In addition, diversity of Plasmodium in the three groups will be further examined by characterizing the allelic variation of the Merozoite Surface Protein of Plasmodium.

Aside from the scientific findings, my field experience was invaluable for gaining expertise in investigating the conditions that enable a country in a low-resource setting to apply molecular techniques to infectious disease surveillance. icddr, b is one of the few institutes in malaria-endemic areas that are equipped with the infrastructure and skilled personnel to perform molecular assays such as qRT-PCR. My practicum experience demonstrates that the key enabling factors are: 1) equipment, reagents, 2) skilled lab personnel, 3) adequate freezers to store the temperature-sensitive reagents, and 4) adequate lab space for molecular work to prevent contamination. With these factors partially met, the Malaria Group at icddr,b has been able to genotype Plasmodium species and to determine the drug-resistant haplotypes. However, the sensitivity of detection by qRT-PCR is low (~20 percent), and needs to be improved while maintaining the high level of specificity. Ensuring a steady supply of lab reagents remains the biggest challenge, since there is no local manufacturer of the molecular lab reagents.

Finally, the MPH practicum gave me an opportunity to mentor other members of the group in manuscript writing and proposal development, and to assist the Principal Investigator in developing a new study proposal that maximally utilizes the strengths and the opportunities that the group has. I played a lead role in identifying new partners and initiating collaboration for which we will be applying for a grant. It is my hope that the relationship I have developed during my practicum will grow into a long-term mentorship/friendship and collaboration.