

MPH Field Experience Grants

2017 REPORT



Olufemi Erinoso, MPH '18 with a family at Nawaquadamu village in Nadi, Fiji Islands.

JOHNS HOPKINS BLOOMBERG SCHOOL OF PUBLIC HEALTH

MPH Field Experience Fund Award Recipients – 2017-2018
Johns Hopkins Bloomberg School of Public Health

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Larissa Assam

A Situation Analysis of Plastic and Reconstructive Surgery Capacity in Cameroon and a Stakeholder Analysis of Barriers to Surgical Care (Field Research)

Academic Advisor: Marie Diener-West

Johns Hopkins Faculty Affiliate: Gilbert Burnham

Field Counterpart: Dopgima Fofung

Location: Cameroon

Purpose and Objectives:

This three-week field research experience was aimed at performing an assessment of surgical capacity at 3 tertiary care hospitals in Cameroon, to describe the plastic surgery cases performed over a 3-year period at one tertiary care hospital and finally to obtain an understanding of the existing barriers to surgical care from key informant perspectives.

Pre-Departure

Before leaving, a capacity assessment checklist was developed using the WHO Emergency and Essential Surgery checklist to obtain an understanding of the capacity at 3 tertiary care hospitals in Cameroon: 1 mission (Mbingo Baptist Hospital), 1 public (Hopital Centrale Yaounde) and 1 private (Polyclinic Bonanjo). Capacity was assessed in terms of infrastructure, health personnel, supplies and interventions. The electronic operative case log for Mbingo Baptist Hospital for 2014 to 2017 was also made available to describe the plastic and reconstructive surgery cases which were performed at the facility over this time period.

A survey was also developed to obtain information from key informants involved in the care of surgical patients (surgeons, hospital administrators, nurses, etc) about barriers which patients have to receiving surgical care.

Field Research

The trip was organized over winter intersession for a total of 3 weeks with the first week at Hopital Centrale, the second at Polyclinic and the third at Mbingo. Hopital Centrale is the first hospital established in Cameroon as a nation's capital to serve the Central African countries. This years in spite of the limited travel from different parts of region to come for surgical teaching hospitals for Faculty of Health and Medical Mbingo Baptist Hospital is A Cameroon Baptist Convention the North-West region of



public hospital in Yaounde, the needs of Cameroon and neighboring has continued over the infrastructure as patients continue to the country and the Central African care. It also serves as one of two main Cameroon's first medical school, Sciences (CUSS) Yaounde. 310-bed hospital established by the in 1952. It is located in a rural part of Cameroon. It is houses the General

Surgery residency program run by the Pan-African Academy of Christian Surgeons.

The Daniel Muna Memorial Clinic (Polyclinic Bonanjo) is a privately-owned and run 40-bed hospital located in Douala, the economic capital. It was established as a consultant hub serving the urban population of Cameroon. 80% of patients have insurance covered by their employers and the facility is one of the longest standing establishments in Douala.

Results

Administrators and healthcare providers at these three hospitals were surveyed and hospital checklists were completed with healthcare administrators at each site.

There were 3 main findings from this study. All 3 hospitals were found to be at capacity in terms of infrastructure, health personnel, supplies and interventions.

Secondly, looking through the operative case log for Mbingo, the most common plastic and reconstructive surgery procedures done were dressing changes and debridements. Finally, the results of the key informant surveys revealed that finances are the most common barrier which patients have to receiving surgery. Interestingly, one provider mentioned that other barriers such as cultural or religious beliefs mainly came in after patients had identified finances as a barrier.

Implications

The implications of this project are also three-fold. The capacity assessment reveals that all three tertiary care hospitals are at capacity when compared using WHO established guidelines.

However, although they are at significant surgical burden which such as the fee-for-service health This study also demonstrates that as continues to develop, attention specific nature of each hospital. at Mbingo must understand its healing and should ensure related cases if intending to provide vary from the next and skills might Rather, it is important to maintain limitations of scope as applicable.



capacity, there is still a exists due to systematic barriers financing mechanisms in place. the field of Global surgery needs to be paid to the context- Surgeons interested in working history with leprosy and wound competency in performing surgical care. Each hospital will not be easily transferable. professional humility and admit

Finally, based on the results from out key informants, barriers to surgical care access are mainly financial due to the main fee-for-service payment mechanism in most hospital settings. Other barriers include religious and cultural beliefs. The results of these studies will be shared through reports to administrators at each hospital with the hope that the findings will contribute to decision making at the respective facilities and in discussions with government officials.

Sarah Dudgeon: *Investigation of the Low-Cost, Portable, Accurate Autorefractor Developed by PlenOptika-Aurolab to Provide Well-Tolerated Eyeglass Prescription (Field Research)*

Academic Advisor: Frank Lin

Johns Hopkins Faculty Affiliate: David Friedman

Field Counterpart: Sanil Joseph & Shivang Dave

Location: India

Madurai, India is the home of Aravind Eye Care System. Aravind was created by Dr. G. Venkataswamy, affectionately known as Dr. V, in 1976. Upon retirement, Dr. V set out to create a system to cure needless blindness. He began with a small clinic from the trunk of his car, eventually growing into his first clinic. Today, Aravind has six major hospitals and multiple other community centers dispersed throughout the state of Tamil Nadu.

The Aravind model provides free eye care to those in need, as well as a payment option for those who prefer a more accommodating hospital stay. However, both paying and non-paying patients receive the same standard of care. A large contribution to the Aravind model is their in-house manufacturing of medical supplies, namely, the phaco lens. The Intra-ocular lens (IOL) is commonly sold in the United States for around \$300.00. Aravind's manufacturing company, Aurolab, designed a way to create IOLs for \$5.00. Engineering feats such as these play a large part in Aravind's successful free healthcare model.

Through my winter break, I went to Aravind to work as a co-investigator of a clinical trial. Aurolab has teamed up with US-based company, Plenoptika, to design and manufacture a handheld autorefractor, the QuickSee. The QuickSee is portable, lightweight, durable, fast, and accurate. Plenoptika is preparing a two-channel version device for sales in the United States while Aurolab will sell a single-channel version within India. The goal of the study is to see if prescriptions given from the QuickSee alone would be comparable to those given by subjective refraction, the current gold standard in refractive error measurement.

I worked alongside remote study team members in the United States and a Co-PI in India to help create the study methods and begin study implementation and personnel training. To do this, I had to work alongside Aravind employees who spoke a different language than me. Furthermore, social and medical norms are quite different between India and the United States. The American perception of how to approach the scientific process is very rigid and unforgiving, while the Indian process allows for more initial flexibility so long as patient ethics are never compromised. Within the Indian IRB, study groups keep a detailed manuscript of all final study methods and patient scripts, while in the American IRB, this information is required before IRB approval, with flexibility to submit methodologic changes if they arise. Working within this new system was difficult, because I had to balance preferences from both isles. However, we plan to submit our findings to an international journal, forcing me to tactfully device a way to fit some western standards into the Indian culture of my study site, an outpatient clinic in a rural village.

Another challenge while in India was traveling alone. I did not have any study partners with me from the United States. While working on the study, I had Indian team members, but while exploring the country in the evenings and on weekends, I was alone for the first time in a foreign world, unable to speak the language. It was my first time in a Low or Middle Income country, and frankly, I was nervous to go. However, while traveling through Kerala on my week off and exploring the ancient temples of Southern India, I found tranquility. Indian philosophy showed me that the stress that I carried from the States was not necessary for success. Indian philosophy is harmonistic: externally and internally; and focuses on the perception of things. I learned to perceive my world through a new lens, helping me collaborate better with my new team, and live happily in my new country. The study is still under way in India, with many months of data collection left. I look forward to my continued interaction with the Aravind team and trust that we will have many more collaborations in the future.

Olufemi Erinoso***Pattern and Predictors of Oral Diseases in a Cohort of Non-Communicable Disease Patients in Fiji Islands (Field Research)***

Academic Advisor: John McGready

Johns Hopkins Faculty Affiliate: John McGready

Field Counterpart: Isimeli Tukana

Location: Fiji Islands

My Field experience at the Viseisei Sai Primary Health center (VSHC) aimed to evaluate the public health interventions at the VSHC among members of the Viseisei village community. These interventions were further measured against the regional policy targeting NCDs tagged the 'Yanuca Islands framework'. Lastly, we reviewed clinic records at the primary health center in randomly selected two hundred patients who had been followed up for three years.

Methods

This was a qualitative study that triangulated multiple data sources: 10 in-depth interviews, 4 community consultative meetings, and review of VSHC hospital records (200 patients). The evaluation's critical components were: 1. The extent of community engagement in the implementation of the Yanuca strategies at Viseisei village using responses from the in-depth interviews and consultative meetings. 2. Population changes in health outcomes, using indices such as Random blood sugar and systolic blood pressure from the VSHC Clinic records of 200 index patients.

Results

Interventions implemented at the primary health level included health promotion activities in villages and schools, health leadership development through training of Community Health Extension Workers and community health champions; and multisectoral partnerships with the ministries of education and Cultural affairs. However, these strategies faced barriers such as low food self-sufficiency, the inadequate framing of obesity in the local language, and limited policy evidence. Significant changes in health outcomes included an 8mmHg reduction in systolic BP over two years in a cohort of 200 patients. The implementation of the five core strategies in the Yanuca healthy Island framework at the primary health level in Viseisei showed mixed results in reducing the burden of non-communicable diseases.

Project effect on Community

The outcome of the project has helped the clinic and community clearly identify the perceived barriers between the public health interventions offered at the primary health center and the accessibility of community members. Further, it has identified the weaknesses in the implementation of the Yanuca island strategies at the primary health care level. Also, it has detailed the effect of clinical and public health interventions on a cohort of 200 patients attending the clinic for three years and onwards.

Research Challenges in low resource settings

During this experience, I encountered two major challenges at different stages of the project. First, there were language and cultural barriers during interviews. I surmounted this by using interpreters from members of the community and the health center who spoke the local I-Taukei and Indo-Fijian languages. Also, I began writing my proposed interview questions out before meetings and reviewed them with my field preceptor to ensure they were culturally appropriate.

Secondly, I experienced a challenge in scheduling meetings and community visits, as staff at the primary health center had a large volume of patients and clinical tasks to manage. Therefore, I decided to schedule most of the community meetings in the clinic conference room to save time and conducted community visits early in the day, so we could return to the clinic early.

Healthcare Challenges in Viseisei, Fiji Islands

At the Viseisei village, the major barrier members of the community had to overcome in terms of health care was the local framing of health education and promotion activities to encourage ‘acceptability’ of these interventions within the community. Local framing consists of the language in which health educational materials are developed, and a more extensive community health worker training program to reach people in remote areas of the village.

Despite these challenges, efforts are being made by the government, such as training of local community health extension workers by the Ministry of cultural affairs. The rapid establishment of more primary health care centers by the Ministry of Health, as well as free healthcare services at the point of entry and the primary health care level. These problems can perhaps be solved, by local involvement in the framing of health promotion activities by the ministry and foreign aid agencies, as well as a deliberate effort to partner with community-based organizations to train local individuals in community health extension services.

Comparative reflections

Based on my experience at Viseisei village, Fiji Islands, several comparisons can be made with the health care system in the United States.

First, healthcare is free at the primary and secondary healthcare levels. Drugs are free, once prescribed at a government-run hospital, and accessibility to health care is present. Whereas, payment models for health care in the US is more complex with a wide degree of variation between states, across age, and socioeconomic class.

On the other hand, there is a limit to the quality of care available at Viseisei village, Fiji Islands. For example, patients requiring invasive surgical and medical treatment may have to rely on the three tertiary institutions present in the country. These institutions are far between and have long waiting lists. This contrasts with the US, where most centers can offer relatively invasive surgical procedures, and skilled health workers are more readily available.

Culture and language adaptation

Working in a developing country with a different culture and language was an interesting experience for me. I learned to adapt by reading sufficiently about the local custom and culture before arrival, and more importantly asking questions from local indigenes about their everyday life, such as dietary habits, customary greetings, and social etiquette.

In all of these, the unique experience I had was seeing the commonality we share as humans, regardless of geographic location, custom and language differences. The commonality I clearly saw was the desire for wellness and health, and a shared responsibility towards maintaining wellness at every level of social hierarchy.

Reflection

In summary, the field experience met my expectation because I was able to see first-hand the implementation of public health interventions in a local community, then see the gap between the perceived effectiveness and clinical effectiveness. However, a setback I encountered was in developing a patient risk assessment tool. Challenges with language translation and time were major obstacles achieving that goal.

This experience has strengthened my resolve that there indeed lies an intersection between clinical and public health practice and research. Also, now I better understand that total wellness in a community lies between both effective public and clinical practice. An equally important perspective I gained is that the field of global health is unique in that there is no singular approach that suits all communities and populations, but as public health practitioners, we must seek to adapt global principles to local contexts to achieve optimal health outcomes in the population.



A

A. The staff of Viseisei Sai Primary Health center (VSHC) with Viseisei Community health workers



B

B. A focus group meeting with Community health workers and stakeholders from the Vunda cluster of Villages



C

C. Standing at the entrance into VSHC



D

D. A focus group meeting with Community health workers and stakeholders from the Vunda cluster of Villages



E

E. With a family at Nawaquadamu village in Nadi, Fiji Islands. Nawaquadamu is a remote village in the Fijian mountains with a population of less than five hundred people.



F

F. The village health center at Nawaquadamu



G

G. A nurse and patient at Viseisei Sai Health Center



H

H. An English health education poster at VSHC. These posters required local translation during use. An indication of poor local adaptation of health promotion materials

Genevieve Kelly

Identifying the Market Opportunity for Fecal Sludge in Dhaka, Bangladesh (Field Research)

Academic Advisor: Peter Winch

Johns Hopkins Faculty Affiliate: Peter Winch

Field Counterpart: Farzana Begum

Location: Bangladesh

Over the course of three dusty, traffic-congested, *wonderful* weeks in chillier-than-expected temperatures, I worked with Water and Sanitation for the Urban Poor (WSUP) Bangladesh, an organization dedicated to improving the lives of some of the world's most vulnerable populations through access to safe water and sanitation services. Based in Dhaka, I collaborated with the WSUP team to design and implement a stakeholder analysis to evaluate SWEEP, which is a public-private partnership for urban fecal sludge management supported by WSUP. The SWEEP model aims to create a safe alternative to the common practice of manual emptying, in which individuals known as 'sweepers' engage in the dangerous, dehumanizing work of emptying human waste with buckets and rudimentary tools. With technical guidance from WSUP, SWEEP pairs local entrepreneurs with city governments to generate both supply and demand for hygienic vacuum truck services. The partnership not only provides sweepers with a dignified alternative to manual emptying, but through a series of cross-subsidies helps reach low-income households with affordable hygienic emptying for their onsite sanitation.

With guidance from my academic advisor, Peter Winch, and drawing upon my coursework as an MPH/MBA student, I conducted a high-level review of the literature, interviewed over twenty individuals and collaborated directly with the WSUP team to evaluate the SWEEP model. My deliverable was to provide suggestions for how the model could operate more efficiently and effectively as WSUP seeks to expand into additional cities within Bangladesh.

Working in Bangladesh was an excellent opportunity for me to apply my newly-minted skills in both qualitative and quantitative analysis; I designed questionnaires to gather information related to the health context of Bangladesh, the political environment, the government structure, cultural and behavioral norms as well as aspects of the SWEEP business model such as cost and revenue structures. I met with a diverse set of stakeholders, from former manual sweepers now employed by SWEEP, to top government officials representing cities of Dhaka and Chittagong. I walked through a smoking landfill to visit the drying beds where the fecal sludge is dumped, and also spent time meeting with families, surrounded by the smells of the nearby open sewers.

As my stay in Dhaka drew to a close, I had gained a holistic view of the SWEEP public-private partnership, and on my last day with WSUP I provided the team with a presentation containing key insights into the model and my recommendations as they move their project forward. While it's terribly cliché to say, I know that I gained far more than I gave; I experienced a new and exciting culture, language and cuisine, I practiced in reality on the ground of program health implementation, I was able to truly combine my coursework from both my MPH and MBA and I was able to further establish myself as a professional in the WASH sector. I am very grateful to the JHSPH for making this trip a possibility.

Jennifer Kuhl

Investigating the effectiveness of earthen barriers to mitigate the leaching of pathogens from pit latrines in coastal Bangladesh (Field Research)

Academic Advisor: Peter Winch

Johns Hopkins Faculty Affiliate: Peter Winch

Field Counterpart: Solaiman Doza

Location: Bangladesh

It is one thing to read that Bangladesh is low lying, to be informed by reports from the Intergovernmental Panel on Climate Change that the country is severely threatened by sea level rise and increasing salinity; it is a much more powerful experience to look over a broad field, filled with hardworking farmers, bordered by houses, depended on by families, and to imagine all of it gone. The land is strikingly flat, with interlacing roads raised like the edges of a bowl, and the land is bounded by water – ponds and rivers and ocean. In the past, this topography was beneficial – yearly flooding, for example, allowed rice to grow. However, science suggests this will change, and being in southern Bangladesh, it is easy to see how as the world warms, the heat expanded sea will rush in, swallow the fields, and displace millions.

Thanks to the MPH Field Award, I was able to spend two and a half weeks in Bangladesh working with icddr,b's Environmental Interventions Unit (EIU). While there, I had the opportunity to connect with a team conducting a randomized controlled trial investigating the effect of sand barriers on to ground water. I also had the opportunity to on potable water and sanitation projects in south west and south central Bangladesh, support icddr,b to consider applying activities related to climate change. While the latrines project was my original point of connection with icddr,b, compiling the report on the water and sanitation effects of climate change was also a very meaningful undertaking. Bangladesh is the deeply about the injustice of climate change, organization to potentially access climate financing to help climate-affected communities was challenging but fulfilling.



My participation in the latrines project included a visit to latrine sites in Barisal Division, an administrative district in south central Bangladesh. This two-day visit allowed me to both witness ground water extraction and testing around latrines, and to see the landscape in the south of the country, an area which is already being impacted by sea level rise. In terms of the latrines project, it was valuable to see the process used by the field team to test ground water. As a deliverable of my trip, I am helping with a paper discussing rotavirus transmission from the latrine sites, and seeing the research process in action has provided helpful context for my sense of the people and the land that is valuable. At one latrine site, we met a family who had lost their previous home to erosion, and as we talked with them, I be able to stay in their current home. In terms of thinking about the potential health impacts of climate change, putting faces to the staggering numbers (it is estimated that millions will be displaced by rising sea levels in Bangladesh) offered a concerning but important perspective.



My time in Bangladesh allowed me to gain experience working for a research organization and to build enriching relationships both with the full time icddr,b staff, and with visiting doctoral students from other universities. Both of these gave me a better understanding of potential post-MPH career trajectories. Contributing to the rotavirus paper has allowed me to put my recently acquired epidemiological and biostatistical skills to use, and to gain experience in editing and writing for journal publication. Visiting areas of the country that will be impacted by climate change, and learning through conversations with icddr,b staff about

the ways climate change is already impacting potable water access was important to the creation of a document that I hope will contribute positively to future work the EIU undertakes in relation to climate change adaptation. In addition, living in Dhaka, Bangladesh's capital city, even for a few weeks, gave me a more nuanced understanding of the complexities the city, and the country, are facing than I could ever have gleaned from reading articles. It is evident that Bangladesh has made public health gains in recent decades, and that the economy is growing, but the gains seem tenuous in light of the intense pollution, growing population, ongoing poverty, various sources of water pollution, and potential for natural disasters the country also faces. Solving the coming public health challenges will require a multidimensional approach, and it was intriguing and enriching to spend my time at icddr, reflecting on what a small piece of this response might look like. The trip was a valuable, practical addition to my course work and I am very grateful to have the support to travel to Bangladesh for this learning experience.



Canal in Galachipa



Field



Water Sampling

Jessica Mirano:***Formative assessment of Menstrual Hygiene and Management in rural and urban schools in Belize (Field Research)***

Academic Advisor: Kristin Mmari

Johns Hopkins Faculty Affiliate: Kristin Mmari

Field Counterpart: Susan Kasedde

Location: Belize

Background

Menstruation is a natural biologic process but there has been no available data on menstrual hygiene management (MHM) among girls and women in the country of Belize. The primary purpose of the “*Formative research study on Menstrual Hygiene and Management (MHM) in rural and urban primary schools in Belize*” is to provide key recommendations for the planning of evidence-based interventions and national policies and advocacy for MHM in the country.

The formative assessment was led by UNICEF Belize, and supported by the Ministry of Education and the Ministry of Health. Specific objectives of the formative research are:

- To investigate and understand the range of challenges faced by school girls during menstruation - as well as the determinants of those challenges - across a range of settings and cultural contexts (i.e. rural/urban);
- To compare and contrast the varied challenges and determinants across contexts to identify points of intervention that may ameliorate the challenges of menstruation for girls in schools;
- To provide key recommendations to ultimately inform planning of appropriately target proposed program, including development of a ‘basic package of interventions’ and institutional arrangements that can be implemented and sustained at scale across cultural contexts

Through qualitative methods – key informant interviews, focus group discussions, and facility observations, data was collected in twenty selected primary and secondary schools in all six districts of Belize from December 2017 to January 2018.

Description of experience

The student supported this initiative remotely starting September 2017 by developing the research plan, creating the data collection instruments, drafting the training materials, and assisting the local team during data collection with questions on the methodology, instruments, and encoding tools. The Monitoring and Evaluation (M&E) Specialist of UNICEF Belize, Ms. Paulette Wade, closely supervised and collaborated with the student throughout the process.

During the one-week field experience, from the 15th to 19th of January 2018, the student was able to meet the staff of UNICEF Belize, representatives from the Water, Sanitation, and Hygiene (WASH) Technical Working Group (TWG), and other key stakeholders in the country.

The visit was mainly focused on cleaning and analyzing the results of the data collection, with assistance from UNICEF’s M&E Specialist and the local consulting firm. The local team shared all files from the key informant interviews, focus group discussions, and facility observations with the student and a deductive, thematic analysis was done using the socioecological framework initially developed. Biologic, personal, interpersonal, environmental, and societal factors were identified by the student through the review and analysis of the results and were validated by her supervisors. On the last day of the field experience, an Open House and a Validation Meeting were conducted. The student shared the definition, importance, and factors affecting MHM during the Open House to begin the discussion about menstruation and MHM among stakeholders in the country. During the Validation Meeting, the student presented the results of the preliminary analysis while the local consultant facilitated group discussions afterwards on the validation of results and initial recommendations coming from

stakeholders. These initial activities served as the jump-off point for MHM programming nationally.

Moreover, the visit afforded the student a chance to visit one primary and two secondary schools in the Stann Creek district of Belize. This enabled the student to have short discussions with principals, teachers, and students; as well as to conduct WASH facility observations. Lastly, the student was also interviewed in a national morning television show, together with one representative from UNICEF Belize and one from the Ministry of Health, to talk about the importance of MHM and to discuss the MHM formative assessment that was conducted.

Short reflection

The MPH Field Experience Fund Award gave the student an opportunity to provide in-country support for this important, fundamental formative assessment in Belize. Establishing rapport with stakeholders prior to the visit helped in building their trust and in facilitating collaboration. It was also important to prepare well for the visit to maximize the learning experience. Working with the team remotely already allowed the student to apply concepts learned from the MPH program, but being able to visit schools personally, discussing about MHM on national television, building lasting partnerships within the country, and presenting preliminary results to stakeholders could only have been done through field experience.

Annex. Selected photos from the visit



Interview in Love stations' morning show with representatives from UNICEF and Ministry of Health



Student (center) with UNICEF Belize M&E Specialist, Ms. Paulette Wade (left), and UNICEF Belize Country Representative, Dr. Susan Kasedde (right)



School visit in Stann Creek district, Belize



Open House and Validation Meeting



Amanda Onyewuenyi

Characterizing Unmet Need: Investigating the Experience of Clients at Clinic vs Non-Clinic Family Planning Service Delivery Points in Lagos, Nigeria (Field Research)

Academic Advisor: Scott Radloff

Johns Hopkins Faculty Affiliate: Scott Radloff

Field Counterpart: Funmilola OlaOlorun

Location: Nigeria

Nigeria is known as the most populous country in Africa. With that said, it is no surprise that Nigeria also boasts a high rate of total fertility at 5.59 births per woman. In light of these fertility patterns, the contraceptive prevalence rate in Nigeria is strikingly low, with an increasing unmet need for contraception. There is a disconnect between the demand and supply of contraception that is accessible to women in Nigeria due to a variety of cultural and economic barriers.

At the 2012 London Summit on Family Planning, a global commitment was made to ensure universal access to sexual and reproductive health services and rights to all women and adolescents by 2030. Performance Monitoring and Accountability 2020 (PMA2020) is a multi-country program that works to support these goals through performance, monitoring, and evaluation of key family planning indicators. PMA-Agile is an extension of these efforts aimed at improving access to urban reproductive health care, especially for economically marginalized populations. The project identifies data at the service delivery point level as well as data from client exit interviews to further quantify family planning indicators and evaluate service availability. It moves away from the traditional monitoring and evaluation approach by establishing a near-continuous monitoring system that collects and aggregates data on a frequent, timely, and cost-effective basis.

In Nigeria, PMA has partnered with the Center for Research, Evaluation Resources and Development (CRERD) to facilitate data collection across 302 enumeration areas in 7 states. The PMA surveys involve interviewing a probability sample of females aged 15-49 about family planning and fertility preferences, as well as conducting surveys at both clinical and non-clinical service delivery points. The surveys are conducted by resident enumerators (RE) who are women from the respective enumeration area who are trained in using the mobile data collection software.

In January 2018, I traveled to Abeokuta in Ogun State, Nigeria to support the Ogun launch of PMA Agile. There, I participated in the RE training that focused on equipping local women with the knowledge and tools needed to administer PMA Agile service delivery point questionnaires and client exit interviews. Alongside Dr. Funmi OlaOlorun and her team from CRERD, we introduced the REs to the study objectives and helped familiarize them with the data collection protocol. Also incorporated into the training were opportunities to pilot the surveys in the field, as well as various role-playing scenarios to help familiarize the women with the training content. On day three of the training, I had the opportunity to accompany the RE's to the field and observe as they administered client exit interviews. After the culmination of the training, I traveled back to Lagos, Nigeria and there, I was able to meet with the Lagos RE supervisor and discuss more about her experience as an RE in this project. In addition, I accompanied the supervisors to various service delivery points within Lagos and observed the administration of the service delivery point questionnaires.

Participation in this project has helped me better understand the landscape of family planning service delivery in Nigeria, as well as women's experiences accessing contraception. Observing the client exit interviews and visiting the service delivery points was a valuable component of my experience, as it helped provide context to the questions that are included in the PMA questionnaires. Observing the client exit interviews also helped provide insight into the data patterns present in previous PMA survey rounds. This will be extremely helpful as I go on to complete my secondary data analysis of PMA responses from previous survey rounds for my capstone. In addition to providing valuable insight, participating in the PMA Agile training also helped provide me with a better cultural understanding of family planning experiences in Nigeria. Overall, it was a rewarding experience that I am grateful to have participated in.



Kayla Percy***Estimating Trafficking of Myanmar Women for Forced Marriage and Child-bearing in China (Field Research)***

Academic Advisor: Courtland Robinson for both

Johns Hopkins Faculty Affiliate: Courtland Robinson

Field Counterpart: Moon Nay Li

Location: China

My international field experience didn't follow the exact goals and objectives that were set prior to arriving in Chiang Mai, Thailand. However, I do believe that the work performed, hours contributed, and the experience gained fulfilled the initial the Field Fund goals. In the end, I didn't learn what I expected to learn, but as is often the case in fieldwork, I learned a great deal. Below I have the hours and dates defined and then further information on my contribution and work.

	Pre-Thailand:	
Dec 19 th	MPH office approval of practicum	
Dec 23 rd	Analysis of Data (4 hours)	4 hours
Dec 26 th	Analysis of Data (8 hours)	8 hours
Dec 27 th	Analysis of Data (6 hours) & meeting with Casey (2 hours)	8 hours
Dec 28 th	Analysis of Data (6 hours)	6 hours
Dec 29 th	Analysis of Data (8 hours)	8 hours
	Pre-Thailand TOTAL	34 hours
	Thailand:	
Jan 4 th	Analysis of Data	4 hours
Jan 5 th – 7 th	Preparing for KWAT meeting: reading material about KWAT – online documents/website	6 hours
Jan 8 th	KWAT team meeting & introductions	2 hours
	Reading previous reports, dedication to their mission, practices and challenges	5 hours
Jan 9 th	Meeting with Moon – discuss analysis and discrepancies in data	1 hour
	Edit report relating to interviews of the data, and returned to data analysis	6 hours
Jan 10 th	Kachin Holiday – worked from home - Continued readings of previous KWAT reports & data analysis	6 hours
Jan 11 th	Meet with field staff	2 hours
	Informal conversations with staff about life in Kachin State & data research	4 hours
Jan 12 th	Meet with field staff	2 hours
	Continued data analysis & comparison to their data analysis	4 hours
Jan 15 th	Meet with field staff	2 hours
	Continued research about Kachin people and problems encountered	3 hours
	Dinner/Meeting with Kachin Development Group	4 hours
Jan 16 th	Meet with field staff	2 hours
	Meeting discussing trainings and health assessments in the field with Shirley and Moon	1 hour
	Begin writing up background information for future report	4 hours

Jan 17 th	Meet with field staff – this also includes going over English translations and meanings of data	2 hours
	Continue background information for future report	4 hours
	Meeting with Casey via Skype about updates	1 hour
Jan 18 th	Final meeting with staff altogether (2 hours)	2 hours
	Continued filling in gaps in data and analyses	4 hours
Jan 19 th	Finished last details about identifying gaps in the data	5 hours
		76 hours
	Post Thailand:	
Jan 26 th	Meeting with Dr. Robinson	1 hour

This opportunity did allow me to help generate profiles based on the data analysis and meetings with the field staff about a “typical” victim and common vulnerability factors such as poverty. We began to discuss and brainstorm ideas of risks and protective factors that contribute to trafficking. This brings the data into more focus as I have had a chance to discuss it with local staff. The details which have been clarified now, will allow me to be an active participant in writing a report for funding of the Kachin Women. I was also able to further identify the typical transit routes of the traffickers by looking at maps with the field staff and having them orient me to the different areas, specifically ones which are spelled differently than the English maps and/or ones that did not appear on the map.

This was less hands-on than we previously anticipated. I was not able to hold any health care trainings due to time, lack of staff availability and due to other more immediate pending obligations of the KWAT staff. However, we did discuss ideas for these projects and what might be needed in the future. We also were focused on the sex trafficking data and project. Though, again due to staff being pulled in many directions, the report/proposal for funding has not been fully formulated. This will instead unfold over the next month, which is when the donor has a meeting with KWAT and Dr. Robinson. My field experience has helped me to understand the needs and wants of the KWAT team and to be able to reliably take both of our data analyses and reach a proposal that reflects the KWAT’s interests and goals while keeping their mission in mind.

I was asked to do some teaching with the field staff regarding humanitarian law and history for the benefit of the staff. This was an additional task assigned to me while in Chiang Mai and one that benefited the staff. It also enabled me to build rapport and relationships which allowed me to understand their culture more completely and to gain more trust in order to discuss sensitive topics such as sex trafficking. Meeting with field staff also allowed for further understanding of the KWAT situation, Kachin and Burmese relationship and history, filling gaps in the data regarding location, sentence fragments, un-translated words, etc.

Lastly, this experience has generated a further understanding and appreciation for the Kachin people and the push-pull migration system that they are being subjected to. This experience will lead to a qualitative article exploring the data collected in relation to the migration system they are both unwillingly and willingly apart of.

Sandeep Prabhu

Assessing the Impact of Concomitant Alcohol Use Disorders, Ongoing Substance Use and Depression on Viral Suppression in Men Who Have Sex with Men in India (Field Research)

Academic Advisor: Sunil Solomon

Johns Hopkins Faculty Affiliate: Sunil Solomon

Field Counterpart: A. K. Srikrishnan

Location: India

The purpose of my trip to India this past December was to conduct qualitative research (focus group discussions and interviews) with men who have sex with men (MSM) in three Indian cities. After flying into Chennai in South India, where my family lives, I proceeded to fly up north to New Delhi, the capital.

Now notorious as the most polluted city in the world, New Delhi and urban surrounding areas are now home to more than 25 million people and are an eclectic mix of the old and new, rich and poor. My own work took

me to an NGO suburb on the
NGO office
the most densely
have been in,
inches from each
Kong referred to
neighborhood in
claustrophobic
before. A group



and my local guide facilitated the focus group discussion in Hindi, a language I have basic working knowledge of. After a lively discussion that lasted more than an hour and a half, I headed across the city by Metro to the intravenous drug user site that my advisor's organization runs.

The site is nestled within the Chandni Chowk neighborhood of Old Delhi, the congested and disorganized half of the capital. At first sight, the place does not look like a clinic. Consisting of two mobile metallic tent-like structures in the middle of a parking lot filled with abandoned vehicles and across the alley from a police station, the seemingly make-shift clinic has personnel who provide care to and access to opioid substitution therapy to dozens of individuals daily. Many of the clinic's longtime patients live in the abandoned vehicles themselves and inject on site. I spoke with clinic staff here to learn about their work and clinic workflow.

Following this visit, I headed to the airport on my way to Hyderabad, a metropolitan area located 1,000 miles south of Delhi and now home to about 8 million people. Located in the Deccan plateau in the center of the subcontinent, Hyderabad has been the seat of the Nizam of Hyderabad, a monarch whose dynasty lasted hundreds of years last millennium before being absorbed into the nascent Indian nation in the late 1940s. Like Delhi, Hyderabad too is a colorful collection of the old and the new, the old here being ornate Islamic architecture and the new being the booming biotechnology and information technology industries that dot the suburbs of this economic powerhouse. Having arrived on the last flight out, it was well past midnight when I reached my hotel. After getting some sleep, I headed to the clinic the next morning

The integrated care center (ICC) that my advisor's organization runs in Hyderabad is in an unmarked building on the third floor. While compact, the premises are efficiently organized and contain cubicles for a nurse, physician, site coordinator, an in-house lab with a lab tech and space for outreach workers. I held the FGD at the conference room inside the site with the assistance of the local site coordinator. As a fluent Telugu speaker, I was able to communicate with the MSM participants comfortably throughout this FGD. Following this session, I proceeded to observe clinical care in the cubicle where the on-site physician was seeing patients and witnessed his motivational interviewing approach firsthand. Finally, the site coordinator graciously organized a FGD of all the clinic providers late in the afternoon, where I was able to elicit their perspectives on challenges facing MSM and their perspectives on those issues.

Following my second productive day, I decided to explore some of the architecture of the city for myself before heading to the train station for my awkwardly timed train connection to Vijayawada, some 200 miles away by rail. I left Hyderabad around 10:30 PM after an hour-long delay in a crowded train station- a classic Indian experience.

I reached Vijayawada around 3:30 in the morning and proceeded to my hotel room to get some more sleep before heading to the FGD in the city. Vijayawada is a bustling city of more than a million people. Located on the banks of the Krishna River, this city of canals has many historical caves on its outskirts. I made a mental note to check them out if time permitted after work, but I first proceeded to head to the hotel where my local contact had organized the FGD. Given that the ICC in Vijayawada is located inside the government general hospital, I was informed that I would not be allowed inside, so instead my local contact organized the session in a hotel room. After an hour and half of discussion with the numerous participants, I proceeded to conduct a 20-minute-long interview with one of the MSM participants, who is also a nurse at the ICC. This enabled me to get a unique perspective of MSM care from an MSM himself. Following this session and interacting with the local contact further, I proceeded to kill time by exploring the city (and surrounding caves) before my awkwardly timed middle of the night train connection back to Hyderabad, that was yet again delayed.

Exhausted when I returned to Hyderabad the next morning, I proceeded to head straight to the ICC to conduct one more FGD, this time involving a mixed group of both HIV positive and negative individuals following which I headed to the airport and back home to Chennai.

The FGDs were eye opening experiences for me as they were my first instance interacting with MSM in India, a very vulnerable group. As someone who grew up in India, I had experienced instances of transgenders haggling for money on trains when I used to travel, but that was the extent of my interaction with the LGBTQ community. This trip enabled me to understand many of the challenges they encounter, including harassment from legal authorities (homosexuality is criminalized in India), violence from their families (with some MSM being killed due to their orientation) and the challenges of living a double life in a society where MSM are expected to enter heterosexual marriages and bear children. This underscored the importance of my continuing to work with this community going forward and motivated me to arrange to do a clinical rotation with my advisor's organization in Chennai, at their main clinical site where they provide care for both MSM and heterosexual populations with a range of infectious diseases.

This Field Experience Fund enabled me to broaden my horizons about a range of issues affecting a hidden

population in a country I grew up in yet knew close to nothing about and provided me an avenue to work with them to help improve their health and wellbeing.

Note: Below are pictures of the cities I visited but I refrained from taking pictures of individuals due the sensitive nature surrounding privacy for MSM in India.

New



Viiavawad



Brandon Quinn

Fundación Santa Fe de Bogotá Emergency Department: A residency-based initiative for research in operations management, quality improvement, and public health. (Field Research)

Academic Advisor: George Pariyo

Johns Hopkins Faculty Affiliate: Jeremiah Hinson

Field Counterpart: Salvador Menéndez

Location: Bogotá

The MPH Field Experience Fund Award provided me an extraordinary opportunity to apply public health knowledge and skills in a unique environment, and in such a way that was highly valuable to my professional and personal development. The project varied from the initial proposal—the hospital wanted to invest more energy into a specific quality improvement project in the Emergency Department with the goal of modeling this process to other departments later on.

Health systems around the world are increasingly affected by overcrowding in Emergency Departments. In Colombia and at the institution of Fundación Santa Fe de Bogota, the problem is also influenced by a national emergency care law which demands that all patients presenting to an emergency room are attended. This problem of overcrowding directly worsens quality and diminishes the value of the services provided, such as patient satisfaction, total length of stay, and wait times. But also, occasionally, it can directly affect the health outcomes and even compromise the life of certain patients due to the delay in care.

To begin to improve these prolonged times, many institutions have implemented acuity-based stratifications in their emergency care system in order to better focus process improvements to certain groups of patients. Fundación Santa Fe de Bogotá has a variety of stratifications, and one of them is a group of “observation” patients, who require a more intensive level of attention during their stay, including a bed, regular vital sign checks or monitoring, intravenous fluids or medications, and pain management. This group tends to require more extensive and complicated diagnostic investigations during their stay, thus consuming an even greater amount of resources and time. For these patients at FSFB, approximately 70% of their total length of stay in the Emergency Department is spent during this “observation time,” which is the time between the initial medication consult until the final disposition is made.

In this project, improving observation times involved forming an interdisciplinary team that meets weekly to define the problem, measure relevant statistics, analyze the metrics and the current processes contributing to the problem, implement solutions, and finally continue the process, a process that captures the steps of Lean Six Sigma’s DMAIC: define, measure, analyze, improve, and control.

I was able to assist the team with background research on appropriate metrics, preliminary data preparation and analysis, and preparation for weekly meetings. I also embarked on a related project which was outside the defined limits of the QI project but which applied to the same metric. This involved data analysis of patients presenting to the Emergency Department with abdominal pain (a problematic group with very long wait times within this group of patients) with the objective of preparing recommendations for a nursing triage “standing orders” protocol in order to ultimately improve the above “observation times.”

Most importantly, this project provided me the opportunity to learn about operations management and quality improvement in a practical setting and within an Emergency Department—this is very relevant as I hope to attend Emergency Medicine residency. It also allowed me to continue my Spanish language development and contribute meaningfully in a cross-cultural setting.

Lavanya Rao***Investigating Economic Violence against Community Health Workers in Rural Karnataka (Field Research)***

Academic Advisor: Melinda Munos

Johns Hopkins Faculty Affiliate: Melinda Munos

Field Counterpart: Mohan H.L.

Location: India

The MPH Field Experience Award enabled me to return to India to continue research regarding violence against female community health workers. From 2015 to 2016, I spent the year working with Karnataka Health Promotion Trust (KHPT), an NGO based in Bangalore, India through a Fulbright research grant. KHPT designs, implements, and evaluates evidence-based programs in the fields of women and children's health, adolescent education, violence against women, HIV/AIDS, community institution building, and more.

My study specifically sought to understand the work experiences of Accredited Social Health Activists (ASHAs). ASHAs are female community health workers instituted by India's National Rural Health Mission, a government strategy to expand healthcare to under-served rural areas. ASHAs conduct prenatal and postnatal visits and counsel women on contraception, birth preparedness, the prevention of reproductive tract infections, breast-feeding, childhood immunizations, and methods of caring for the young child. Aside from these more evident roles, ASHAs additionally promote health change in their communities by fostering an awareness of women's health and bringing visibility to female community involvement, particularly in surrounding patriarchal settings.

Unpacking violence against ASHA workers is not only necessary from a human rights standpoint, but is also vital in improving ASHA health service delivery. If the day-to-day experiences of these women are discounted, bottom-up interventions involving ASHAs will fail to reach their full potential. My study surveyed 400 and interviewed 15 ASHA workers. The study aimed to capture experiences of violence, perpetrators of violence, mental health, and service delivery patterns from ASHA workers.

As KHPT is an organization with vast experience in rights-based advocacy and community-centric initiatives, this past January I was able to collaborate with them in brainstorming how best to use the insights gained from this study to create impact. This involved together designing the analysis plan for the study, disseminating preliminary findings, devising potential solutions, developing policy changes, and thinking through potential funding strategies to address and prevent violence against community health workers.

While the data is still being processed, preliminary results are as follows:

ASHA workers face extremely high amounts of violence: This study probed for experiences of economic, emotional, physical, and sexual violence. Of the ASHAs surveyed, virtually all (~94%) had faced some sort of violence in the past 6 months. As ASHA workers are at the bottom of the healthcare pyramid, interact with many beneficiaries, and often come from economically disadvantaged households, ASHA workers are highly vulnerable to violence. Large amounts of ASHAs also faced economic violence (~88%), emotional violence (~73%), sexual violence (~31%) and physical violence (~25%).

Perpetrators of violence: The main perpetrators of this violence included the families of the beneficiaries that ASHAs interact with during home visits, their healthcare colleagues, and their own families. ASHAs faced high amounts of emotional and economic violence from their beneficiaries and healthcare colleagues and high amounts of physical and sexual violence from their own families.

Covariates of experiencing violence: Older ASHAs, ASHAs of disadvantage caste categories, and ASHAs who were widowed, divorced, or separated were more vulnerable to violence. Interestingly enough, it was found that when ASHAs were the main earning members or the primary decision makers of their households, they were more often victims of violence. Through qualitative interviews, it was revealed that their increased earning power challenged traditional gendered household norms, aggravating household members, beneficiaries, and community members. It can be inferred that as empowered as these women might be, enabling an empowering home and work environment is vital to prevent violence against ASHA workers.

The MPH Field Experience award granted me an opportunity to blend my past experiences researching gender-based violence amongst community health workers with new knowledge gained from my coursework at Bloomberg, allowing for a constructive period of academic, professional, and personal growth.

Abigail Reich***Understanding and addressing the moral dilemmas of sedentarisation of pastoralists: Practical ethics of mitigating conflict amongst water and food-resource-constrained populations in the Northern Kenya Semi-Arid Lands (Field Research)***

Academic Advisor: Keeve Nachman

Johns Hopkins Faculty Affiliate: Jessica Fanzo & Elizabeth Fox

Field Counterpart: Fatuma Adbi

Location: Kenya

My Field Experience Award was used towards an existing research project that has the objective to explore the moral dilemmas faced by nomadic and settled pastoralists of Isiolo County in Northern Kenya.

Research Project Background:

As a result of more severe climate change, increasingly limited resources, and rising instability due to conflict, pastoralists are failing to thrive. Consequently, many pastoralists are settling. However, the benefits of sedentarisation, such as access to markets, education, health care and food aid, do not always transfer to pastoralists communities. In order to be effective, assistance from developmental agencies and governments must not undermine local institutions, and coping mechanisms. This requires inclusion of pastoralists' perspectives.

Methods:

This phase (Phase II) of the project was to conduct semi-structured key informant interviews with national-level stakeholders, including policymakers and program planners. Findings from Phase I (Photovoice project and semi-structured interviews with pastoralists) were shared, and topics discussed included programs, interventions, and policies targeting pastoralists. The goal of the interviews was to understand the moral dilemmas stakeholders face in making decisions about how they support pastoralist communities.

Use of Field Experience Award:

The Field Experience Award covered travel and lodging costs for the trip. Without these costs covered, I would not have been able to aid in this research. We were able to interview over a dozen key stakeholders at the national level in both governmental, NGO, private, and bi-lateral agencies and organizations. These interviews informed the research project by creating context for the work, policies, and programs around pastoralists livelihoods. The interviews took place in Nairobi, Kenya.

Reflection:

My field experience was exhausting, yet rewarding. Hearing the perspectives of multiple stakeholders brought new dimension to the project. Additionally, it was enlightening to experience the unique interactions we had from stakeholders as American researchers coming to Nairobi—some welcomed us warmly while others were understandably cold and distant. Finally, as I begin to pursue career options, it was insightful to have an idea of what traveling and working for this period of time would be like internationally.

Photos:

Here are just a few of the locations we were able to visit.



Wai Jia Tam

Starting International Social Venture "Kitesong International" (Service-Oriented)

Academic Advisor: Daniela Rodriguez

Johns Hopkins Faculty Affiliate: Andrea Ruff

Field Counterpart: Will Hart

Location: California

Interning at IRIS Global at Redding, California from 4-14 January 2018 on the Field Experience Award was a tremendously fulfilling experience. Learning lessons from a large international non-profit such as IRIS Global, which had a humble beginning of a team of two almost 20 years ago, was eye-opening and inspiring.

The internship began with a full-day in-house staff training session at the IRIS headquarters, where Dr. Cathie Jones, an experienced trainer, conducted a Life Language profile training. Each of us completed a profile test and were able to understand the different strengths, weaknesses of our relationship/ work styles. It was enriching not only to learn about my own leadership style, but to see how such in-house trainings could be particularly relevant and motivating for professional development within a core committee, enlightening each team member on the dynamics of their team. It was a very useful resource for me to similarly conduct such trainings for my own core team at Kitesong Global in future.

The weekend was spent travelling up with the team to Fremont, California, a five-hour drive away. Through a two-day leadership training session led by Dr. Ford Taylor, a renowned leader in Transformational Leadership, I gained much-needed skills in vision-casting, team building, leadership building and conflict management. Attending this was pivotal and catalytic in my own vision-casting for Kitesong Global, as it inspired me to be intentional in building a core team. Over several phone calls with people back home, I made connections with potential staff, volunteers and team members of Kitesong Global to share the vision with them- two are now on board my core committee, and four animators and composers have been recruited for the creative work of Kitesong. The exposure to such a dynamic and strong team at IRIS Global invigorated my drive and commitment to build a strong team for Kitesong Global. This could not have been made possible without the support of the MPH Field Experience Award.

Observing the team set-up and implement their 3-day conference was also very enriching. I had the opportunity not only to interview each core team leader/member about their roles and responsibilities, but the motivation behind their commitment and the challenges they faced as an NGO. The relationship that my church has with them also made them transparent and willing to share realistic struggles they faced as a growing international organization. I had several one-on-one interviews with various staff, who shared with me why they work at IRIS and the kinds of experiences they cherish. This was extremely valuable to me, and attuned me to what makes staff members so loyal in the long term. The personal interviews also gave me insight into skills in strategic leadership, communication and program implementation, and revealed to me the need to have strong evaluation and feedback systems for donors. It motivated me to create an evaluation model for Kitesong's activities, as this is frequently lacking in NGOs. Being there gave me the opportunity to observe, critique and learn from them.

Being able to intern with the Chief Operating Officer (COO), Will Hart, exposed me to the organizational structure, vision/mission, leadership system, fundraising approach, and growth model of IRIS Global. I learned about their organizational structure and its current mode of operation. While IRIS Global now thousands of staff in its 64 offices in 33 countries, they have a lean team of about 12 staff at the Headquarters. These include the COO, two Vice-Presidents, a finance team, HR manager and operating staff who look after child sponsorships and social marketing- this gave me insight into how to build a strong foundation for an international venture. The highlight of my trip was meeting Heidi Baker (the Founder), as she serves in Mozambique, and having her ask me to partner with IRIS through

Kitesong.

My practicum fulfilled its objectives in that I learned several valuable skills that have been key in jumpstarting the development of Kitesong Global's core team. The struggles I gleaned from the team also made me acutely aware of the need to have an evaluation model. A partnership with IRIS Global has also been forged, and they have requested for me to provide the books from Kitesong to their children centers and schools in Brazil and Mozambique in Portuguese, as well as to help in potentially evaluating their programs and developing curricula for their upcoming university in future.

Salma Warshanna-Sparklin

Pathways of Influence: Mapping the Dissemination of Road Safety Evidence for Decision Making in Bogota, Colombia (Field Research)

Academic Advisor: Mark Bittle

Johns Hopkins Faculty Affiliate: Connie Hoe

Field Counterpart: Andres Vecino-Cortiz

Location: Bogotá

The hum of rolling traffic is a constant in Bogota, Colombia. A barrage of busses and cars, bicycles and trucks clogs the city's alleys and arteries. With a slew of road safety issues and the political will to address them, Bogota made it into the Bloomberg Initiative for Global Road Safety (BIGRS). Among partners supporting Bogota to implement and monitor proven solutions is the Johns Hopkins International Injury Research Unit (IIRU). Twice a year, the IIRU team disseminates a technical data report summarizing the progress. My role has been to figure out what happens next. Is it forgotten in a desktop folder or embedded into decisions and actions?

Experiencing both the TransMilenio bus system and Uber rides, I saw first-hand the risk factors that are tracked in the technical report. Drunk drivers were stopped at police check-points. Many motorcyclists and bicyclists wore their helmets incorrectly or not at all. Passengers rarely wore their seatbelts, and everyone sped like they were starring in action movies.

I conducted surveys and key informant interviews across 10 organizations to shed light on what partners did with the behavior trends. The good news: the data makes it into policy implementation strategies, high-level city leadership meetings, police enforcement plans, public health campaigns, and even the media.

Following the data from IIRU to partners and beyond, a network analysis took shape. I diagrammed the dissemination pathway of the report, which trickled down to data excerpts that reached as far as the general public. In addition, I am synthesizing the body of responses and identifying themes to tell a larger story. Based on this mixed methods case study, I am drafting recommendations for how to overcome the gaps and barriers of moving evidence to action. One of the themes that has emerged is how the Johns Hopkins stamp on the data has helped to propel the road safety cause in Bogota.

Working with my faculty mentor Connie Hoe, PhD, and my field preceptor Andres Vecino-Cortiz, PhD, from the Institute of Public Health, Pontificia Universidad Javeriana, the project was my first exposure to the trauma and injury field. It was also my first formal participation in the evaluation of a global health research study. I gained training in qualitative data collection, analysis—including deductive coding, inductive coding and the use of qualitative analysis tools—and manuscript writing.

My time abroad was a significant professional development opportunity for a career path in global health. What made the experience so rich, however, was not just the work, but also the challenge of navigating a foreign culture and language. One month in this sprawling, equatorial city in the mountains allowed me time to visit the Caribbean coast to the north and the Amazon rainforest to the south. I am forever grateful to the Bloomberg School for this once-in-a-lifetime experience.



Joseph Cheaib & Saad Abdel Aziz

Cancer in Syrian Refugees in Lebanon and Jordan: Challenges to Providing Prevention and Treatment (Field Research)

Academic Advisor: Marie Diener-West & Kent Stevens

Johns Hopkins Faculty Affiliate: Paul Spiegel

Field Counterpart: Fouad Fouad & Adam Musa Khalifa

Location: Lebanon & Jordan

Joseph Cheaib

The refugee crisis in Lebanon due to the Syrian civil war was a main factor behind my decision to apply for a Master of Public Health program at Johns Hopkins Bloomberg School of Public Health; it was that crisis that helped me see and realize that as a physician, I would need a wider set of public health (and not just medical) skills to be able to deliver the best care for particular populations. I had already planned upon my arrival to JHSPH that I would try to undergo a practicum experience related to the field of humanitarian health. The MPH Field Experience Fund Award not only allowed me to do so, but more importantly enabled me to conduct valuable work in my home country, Lebanon, that directly tackles the major issue that had brought me to JHSPH, the Syrian humanitarian crisis.

With the help and support of Dr. Paul Spiegel from the Johns Hopkins Center for Humanitarian Health, I received the opportunity to collaborate with the United Nations High Commissioner for Refugees (UNHCR)-Lebanon to study the burden of cancer among Syrian refugees on the healthcare system in Lebanon, as well as the challenges to providing the necessary prevention and treatment. I was welcomed by a fantastic team of public health professionals at the UNHCR headquarters in Lebanon: Dr. Michael Woodman, Dr. Jakob Arhem, Dr. Hussein Ali, Dr. Diana Aoun, and Mrs. Marie Akiki. This group of physicians and a nurse oversaw the UNHCR's health program and dedicated their time to improve and try to ensure the health and wellbeing of Syrian refugees in Lebanon.

My main task throughout this field research experience was to extract necessary data from the UNHCR's patient files. After being granted access to the records, I spent a great amount of time filtering patient charts (restricting to cancer patients only), retrieving information on the particular cases, and validating the information using UNHCR electronic databases. A valuable part of my experience, nonetheless, was getting to discuss in depth and learn more from the UNHCR staff about the complexity of cancer care for refugees in Lebanon. I became aware for instance that due to limited budget, only life-saving surgical interventions were covered by UNHCR for cancer patients; proposals to cover chemotherapy or radiotherapy were always declined. I also had the opportunity to attend an Exceptional Care Committee (ECC) meeting. Cancer cases sent to the UNHCR are usually referred to the ECC due to their high cost, and it is in the ECC meetings that decisions are made regarding whether to accept or decline the referred cases (to cover the cost of cancer treatment for a refugee or not). Thinking of a Syrian refugee with cancer for whom a treatment proposal got declined was truly heartbreaking, to say the least; such a person, in most of the cases, had to choose one of two options: either stay in Lebanon and eventually succumb to his/her cancer, or return back to war-torn Syria that he/she had fled due to the conflict in order to receive treatment (a third option would be medical resettlement, but this is not very common). Lastly, as part of my experience, I visited a refugee camp site; this was not, however, organized by the UNHCR, but rather a personal venture.

Now that I'm back, the plan is to combine data from Lebanon with data from Jordan (extracted by Saad Abdelaziz) and conduct an analysis of these data. We hope to obtain significant findings that can inform new health policies in Lebanon and Jordan to improve the health system capacities for refugees and facilitate refugee access to referral healthcare, as well as ensure that refugees are offered quality services using the most cost effective and conservative treatment options available.

Saad Abdel-Aziz
Jordan

Cancer in Syrian refugees was overlooked by different health care providers in the middle east, but since Syrian refugee's numbers in the middle east are increasing. A new strategy was taken to help providing the treatment for the misfortune refugees. Recently the United Nations Higher Commissioner of Refugees (UNHCR) made a development toward covering the treatment costs for Syrian refugees with cancer. Covering the treatment costs was by developing the Exceptional Care Committee (ECC). ECC has covered over 700 cancer cases in Jordan since year 2012. A new analysis with a summary of the cancer challenges in Syrian refugees was needed to present the data from funding applications for refugees for cancer treatments in Jordan for 2016 and 2017. To help building recommendations to improve prevention and treatment including improvement of health systems through standard operating procedures and innovative financing schemes, balance of primary and emergency care with expensive referral care, development of electronic cancer registries.

Data collection was necessary. since there were some misconceptions about the number of the refugees are being reviewed by the ECC, or the different types of cancers in the refugees. My mission was in the UNHCR main office in Amman. My contact in Amman was Dr. Adam Khalifa, a senior public health officer in UNHCR with a long experience in the humanitarian field. Prof. Spiegel has provided me with Dr. Adam's contact information. In the first day in the UNHCR and after meeting with Dr. Adam, I was previewed to the magnitude of UNHCR's work in Jordan. UNHCR provide critical emergency assistance in the form of clean water, sanitation and healthcare, as well as shelter, blankets, household goods and sometimes food. Also, UNCHR arrange transport and assistance packages for people who return home, and income-generating projects for those who resettle. Plus, funding for different clinics and hospitals that treat refugees.

After I was oriented to UNHCR operation in Amman, I went to the public health department. The public health department, is consisted of a team of nurses and doctors. The team has many responsibilities concerning refugees' health. Responsibilities ranges from funding the clinics and monitoring it daily work, to managing refugees' health cases. Since my objective was to analyze the ECC data in the department, I was briefed to the number of ECC files. ECC files, had the description of the ECC meetings, with the diagnosis of the patients and the management required to be funded by the UNHCR. Number of the ECC files for 2016 were around 2,500 files, 200 of these files were cancer cases. For 2017 the files were about 3000, 250 files were for cancer patients. During the first week, I had to go through the files and collect the needed data. As I was assigned to a desk in the department to collect the data. Public health team in the UNHCR were helpful and provided assistant to me in explaining any questions regarding the data.

During the second week of the practicum. I had the chance to have a skype call with my advisor, thus we agreed to focus on specific part of data. So, in the second week I was verifying the data that I obtained from the ECC files. The public health team also provided me with a spread sheet for the all the ECC cases, but it was still in need for a further verification. I had to verify the names, diagnosis, amount of funding, and the gender for the all the 400 cancer patients. Finally, with my last week in the UNCR, I had managed to go through the ECC files, and extract the data we need for the study.

Merve Gurakar & Eustina Kwon

Improving access to surgery through a mobile surgical unit in rural Ecuador (Field Research)

Academic Advisor: Henry Perry & Junaid Razzak

Johns Hopkins Faculty Affiliate: Henry Perry

Field Counterpart: Edgar Rodas

Location: Ecuador

Five billion people worldwide lack access to timely, safe, affordable surgical care. Low and middle income countries have the worst access, with nine out of ten people unable to access basic surgical care. Cinterandes, an Ecuadorian humanitarian mobile surgical program, uses a truck equipped as an operating theatre to deliver surgery to the rural and remote patients in Ecuador. As one of the only mobile surgical units in operation in low and middle income countries, for over 20 years Cinterandes has overcome the barriers preventing access to surgical care, such as distance, poor-quality road networks, and lack of suitable transport.

Our first week in Ecuador was spent at Cinterandes headquarters in the beautiful city of Cuenca. As part of our work with Cinterandes, we worked on two separate projects. The first project focused on examining surgical outcomes following laparoscopic cholecystectomy and herniorrhaphy performed by Cinterandes. As two of the most common procedures in general surgery, these operations significantly burden public hospitals in Ecuador and necessitate long-waiting times due to their elective nature. Since the early 1990s, Cinterandes has performed over 500 laparoscopic cholecystectomies and 1300 herniorrhaphies in its mobile surgical unit with low complication rates that are comparable to hospital-based and same-day surgery.

The second project focused on measuring Cinterandes' compliance with the surgical safety checklist. Since the "Safe Surgery Saves Lives" campaign by the WHO in 2008, the WHO Surgical Safety Checklist has been shown to effectively reduce perioperative complications and mortality in surgical patients. However, safety checklists are only effective when used as intended; therefore, it is crucial to assess the utilization of these checklists by measuring compliance and completeness. The purpose of this study was to assess the compliance of checklist completion by Cinterandes staff and to identify barriers for utilization.

Our second week in Ecuador was spent delivering surgical services to the people of Palmar (a rural, coastal town) with the Cinterandes team. This was the most rewarding aspect of our trip, as it provided us the unique opportunity to experience Cinterandes' work in action. During our short time, we completed 17 major and minor operations including post-operative care and management, often working until the early hours of the morning; one day, we worked until 5AM, slept for 2 hours, and returned to the operating room to start another full day of operations!

We were amazed by what Cinterandes can accomplish with limited resources out of just a small truck. A dedicated team plus careful selection of each patient have led to excellent results for over 20 years. It was truly incredible to witness the successful integration of essential surgeries into primary care. We were honored to be a part of Cinterandes's meaningful work, and look forward to continued collaboration in the years ahead!



Nickey Jafari & Lindsay Peters

Child Marriage in Emergency Contexts, Myanmar (Field Research)

Academic Advisor: Courtland Robinson for both

Johns Hopkins Faculty Affiliate: Courtland Robinson

Field Counterpart: La Rip

Location: Myanmar

Among the numerous adverse consequences of protracted, internal conflicts, child, early, and forced marriage remains a prominent concern among public health professionals. Due to a myriad of issues surrounding safety, financial instability, and familial support, child marriage increases significantly with the onset of conflict and displacement. In 2011, an onslaught of fighting between Burmese government forces and the Kachin Independence Army prompted a new wave of internally displaced peoples (IDP's) throughout Kachin State. With thousands of Kachin currently living in displacement camps, adolescent girls are at an increased risk of child marriage and its adverse health effects.

Our field experience project was part of a larger, three country study taking place in Lebanon, Ethiopia, and Myanmar conducted by Courtland Robinson of the Center for Humanitarian Health. In Myanmar, the protracted conflict in Kachin State led the Kachin Development Group (KDG) to implement a program for internally displaced adolescent girls who are engaged, married, or previously married in order to provide important life skills to mitigate the risk of early marriage. Our task was to assist in the development of an evaluative framework assessing programmatic material and content regarding the prevention of child marriage among the internally displaced population located in Kachin State, Myanmar.

Due to a scheduling conflict with KDG, our time with the organization was greatly diminished, and we were unable to work directly with the organization while in Kachin State. In lieu of our original plan, we met with several other local NGO's while in Kachin State with programs similar to those of KDG. Additionally, we gained direct insight to the services and programs provided to the internally displaced population by visiting three camps located in Myitkyina and the surrounding area.

Throughout our time in Myanmar, we were able to conduct several key informant interviews with KDG staff, local NGO's in Myitkyina, internally displaced persons, and Johns Hopkins graduate Khay Mar Aung (MPH '16), who had also traveled to Myanmar for her practicum experience. Through the interviews, we learned how each organization operated in a protracted conflict situation and how difficult it is to assess programs without a pre-existing framework. Our key informant interviews with the Kachin Women's Association Thailand (KWAT), Htoi Gender and Development Foundation, Nawshawng Community School, and Kachin Baptist Convention (KBC) highlighted the plight of the internally displaced and the toll protracted conflict takes on a population over a period of several decades. Our interviews were insightful and illustrated the need for an evaluative framework in order to ensure that

each program is effective and impactful to best serve their high-risk populations.



Outside of our meetings with local NGO's, we were able to visit several IDP camps in order to contextualize the institutional knowledge surrounding programs striving to reduce child marriage in emergency settings. Our key informant interviews at the Jat Mai, Zion, and Maina IDP camps included meetings with camp management and security, medical personnel, WASH coordinators, the director of child and maternal health, and numerous camp residents.

Through our conversations at the IDP camps, distinct patterns and trends have emerged that represent the greatest challenges facing those residing in displacement camps. To gain first hand insight into the lives of those our programs aim to assist was invaluable. Our key informant interviews reaffirmed the importance of qualitative assessment tools in any evaluative framework. The voice of those effected by conflict are integral in ensuring a program is efficacious and pertinent. Being able to interact with those directly affected by protracted conflict was by far the highlight of our field experience.

We are incredibly honored and humbled to have taken part in this extraordinary experience. We were continuously impressed by the resilience of the Kachin people as well as by the tireless efforts of the local Myitkyina NGOs. Throughout our time in Myanmar we were able to apply our knowledge gained in the classroom to a host of real world situations. We overcame communication barriers, the fluidity of scheduling, and the constraints of working on a conflict setting. The resulting evaluative framework will assist KDG and other local organizations in the assessment of programs aiming to reduce child marriage among IDPs in Kachin State. This experience reinforced our dedication to public health and will ensure our continued commitment to working with high-risk populations in emergency contexts.

Ken Kitayama & Alejandro Ochoa

Epidemiology of corneal transplant and retinoblastoma in Cuba (Field Research)

Academic Advisor: Pradeep Ramulu & David Friedman

Johns Hopkins Faculty Affiliate: David Gritz

Field Counterpart: Ernesto Alemany

Location: Cuba



Retinoblastoma Service



Cuban Institute of Ophthalmology



Eye Bank

With the support of the MPH Field Experience Award, we traveled to La Habana, Cuba in January 2018 as part of a collaboration between the Wilmer Eye Institute at the Johns Hopkins School of Medicine and the Instituto Cubano de Oftalmología (ICO) Ramon Pando Ferrer. We worked on two studies, one focused on the epidemiology of corneal transplants in Cuba and the second examining the epidemiology of retinoblastoma in Cuba. As the country's only tertiary eye hospital, ICO is the main referral center for ophthalmic care in Cuba. It is also home to the country's largest eye bank and is the only medical center in Cuba that can offer globe-preserving therapies for retinoblastoma.

The Cuban medical system and ophthalmic care are vertically organized. The health system is based on primary health care and focuses on prevention, with there being about 32,000 family physicians and a doctor: patient ratio of about 1:170, with about 95% Cuba's population being reached by these services as early as the 1990s. Patients with more complex problems are referred to "polyclinics," and patients requiring specialist eye care are referred to regional medical centers. In regard to eye care, the Instituto Cubano de Oftalmología Ramón Pando Ferrer (ICO) in Havana serves as the quaternary referral center for the entire system.

ICO has the largest eye bank in Cuba, accounting for 90% of the corneal tissue utilized in the entire country. Cuba is one of the only countries in Latin America to be self-sustaining in regard to corneal transplantation, because most countries import corneal tissue from the US or other nations, usually at great expense.

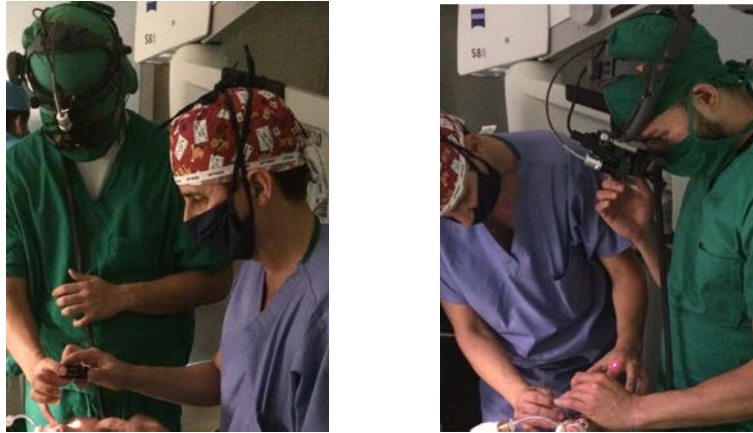
Retinoblastoma is the most common malignant intraocular tumor in children and accounts for about 4% of all pediatric cancers. Retinoblastoma is also an important cause of blindness, resulting from both the disease, as well as the treatment. Approximately 80-90% of children with retinoblastoma live in developing countries and mortality due to retinoblastoma is also higher in less developed countries, for example, up to 95% mortality in the Philippines almost 100% in Nigeria.

Virtually all of the cases of retinoblastoma in Cuba are referred to and treated at ICO by one ophthalmologist. This provides a unique opportunity to examine the epidemiology of retinoblastoma in Cuba, in regard to the rates of disease, both overall, as well as from a regional standpoint.

Project Activities

The primary goal of our field experience was to collect retrospective data from ICO medical records for the retinoblastoma and corneal transplant projects. Before initiating on-site data collection, we gave a brief presentation on both projects to introduce ourselves ICO house staff and to highlight the unique and

important objectives of our two projects. Data collection for the retinoblastoma project consisted of reviewing the paper medical records for all children newly-diagnosed with retinoblastoma from 2010 to 2017. We reviewed and discussed these cases individually with Dr. Ernesto Alemañy, Director of the Intraocular Tumors Project at ICO, and his colleague and fellow retinologist, Dr. Liudmila González. We also had the opportunity to shadow Dr. Alemañy in the operating room at the Juan Manuel Márquez Pediatric Hospital to observe the application of globe-preserving therapies for retinoblastoma (transpupillary thermotherapy and cryotherapy) and the use of RetCam imaging to record the potential progression of disease and/or treatment for the intraocular tumors.



Ken Kitayama (L) and Alejandro Ochoa (R) shadowing Dr. Ernesto Alemañy in the Pediatric OR

For the corneal transplants project, we worked together with Dr. Alexeide Castillo, Director of the Eye Bank at ICO, and Dr. Zaadia Perez, Division Chief of the Cornea Service at ICO. We worked together with the Eye Bank staff to transcribe data from 2012 to 2016 from both cornea donors and recipients, using archived paper charts as our main source of data. We transcribed data related to patient demographics (age, sex, province of residence when available) in addition to important clinical data such as diagnosis/indication for transplant and surgical procedure utilized for corneal transplant.

In the next phase of both projects, we will begin to analyze the data collected at ICO, describing potential patterns of disease the various etiologies of corneal blindness in addition to statistically describing the epidemiology of retinoblastoma from 2010 to 2017.

Our time in Cuba also allowed us to have a first-hand glimpse into the Cuban health system. Though it is focused on prevention and primary care, we were able to observe ophthalmic care services provided to patients at ICO. Though resources are limited, the providers are able to offer high quality care to the patients that travel from all across the country for ophthalmic attention. All in all, we were very impressed with the sight-preserving and in the case of retinoblastoma, life-saving services provided to patients, all at no cost as a result of the universal health care coverage offered to all Cubans.

Sandra Talero & Eric Wan

Program Assessment and Cost Effectiveness Analysis of the National Program for Elimination of Trachoma as a Public Health Problem in Colombia (Field Research)

Academic Advisor: Susan Tonascia & William Padula

Johns Hopkins Faculty Affiliate: Shelia West

Field Counterpart: Martha Idalí Saboyá Díaz

Location: Colombia

Purpose:

The purpose of our MPH Field Award was to assess the impact of Colombia's National Program for Elimination of Trachoma. Specifically, we sought to evaluate the clinical outcomes and economic impact of surgery for trichomatous trichiasis, sequelae of the disease the most common infectious cause of blindness worldwide.

Importance

The economic impact of delivery of trachoma care is unknown throughout the Amazon region, which impedes programmatic planning and delivery model comparison. Additionally, the long-term clinical outcomes of patients treated as part of the program are not known.

Historical and Cultural Context

Located in southeast Colombia, the Vaupes department of Colombia contains the Colombian border with Brazil. The first Jesuit mission was established in 1852. Between 1875 to 1920, the rubber boom brought in rubber barons who founded Mitu, the capital of Vaupes. These rubber barons also created a slave trade among the indigenous tribes and enslaved the indigenous people to facilitate the production of rubber. Beyond the conflict between the foreigners and natives, the rubber barons also incited conflict among different tribal castes of indigenous people. Their demand for domestic servants led higher-caste tribes to raid lower-caste tribes. After the boom, some of the rubber gatherers stayed and intermarried with the indigenous populations.

Currently, twenty-seven thousand inhabitants call Vaupes home; 95% of them are indigenous. In this territory, there are three native reservations: Bacatí-Arara, Yaigojé-Río Apaporis and the east region of Vaupes. Indigenous people spread among 233 communities and occupy more than 90% of the territory.



Figure 1: Multi-purpose use of the river by indigenous tribes. Front to back: boat-building; children playing in the rapids; people traversing the rapids by foot while their boat is lifted across the rapids.

Survival in this region is dependent on a subsistence economy with very small-scale agriculture, hunting, and fishing. In the indigenous communities, essential services such as water, sewage, and electricity are nonexistent. All transportation in this region is through rivers - some of which are difficult to navigate due to their small size and the presence of shortfalls- or single-engine light aircraft, with reduced capacity due to the characteristics of the landing tracks.

Indigenous people from Vaupes are one of the poorest in the Country with reduced developmental opportunities due to their geographic isolation. Besides trachoma, other neglected diseases affect the same population as helminthiasis, tungiasis, pediculosis, and scabies. For these reasons improvement in the quality of life of indigenous communities from the Vaupes state and from the region that shares the same epidemiologic context is a priority with the aim of closing the gap between the diverse Colombian population.

What we did

We collected primary data and secondary data during our time in Vaupes. Consulting clinical records of trachoma patients

within the hospital San Antonio of Mitu. We collected clinical histories and outcomes of medical data from 2013 to 2017. We also sought to understand the costs associated with providing care to the indigenous patients at local and national level. To achieve this, we consulted the Ministry of Health, Vaupes Department of Health, the hospital of San Antonio, regional pilots in the Amazon, and boat operators of the region.

What we learned/gained from this experience academically and personally

The SAFE strategy recommended by the World Health Organization (“S” for surgery, “A” for the antibiotic, “F” for face cleanliness and “E” for environmental improvement) has been validated and has proved to be cost-effective in different regions of the World. Although in the Amazon region requires adjustment and adaptations to the sociocultural, geographic, ecological, political and economic context.

The cast is a social and cultural system of organization among the indigenous population from the region, and trachoma in spite of affecting mainly the lower castes, it is prevalent in all castes. The differences in prevalence among groups and their social position concerns the access to surgery about the geographical location of the tribes in the state along the rivers. The lower castes located in more remote areas have even fewer possibilities of transportation, and less access to food and resources to move to the central city Mitu during the outreach.

In Vaupes there are 27 ethnicities with pronounced differences in culture, language, and cosmovision related with health and sickness. Traditional healers are essential figures in the social structure and have the responsibility of organic and spiritual wellness. In relation with the “S” component of the Safe strategy they have an essential task related with the preparation of the patients before the trip to Mitu, they serve as translators during the process of attention and surgery, and they serve as companions in the recovery process offering comfort with prayers and ritual ceremonies.

We have learned through this experience to give value to the traditional knowledge and the need to respect the sociocultural background of the patients. Consulting the clinical records from the patients, we have learned the importance of the information and data, and the value of the standardization of procedures in the process of research. We have learned about individual contributions and the importance of working as a team, the contribution of different disciplines sharing a different point of view about the same topic, and the value of networking and friendship.



Figure 3: Dr. Sandra Talero, MD, and Eric Wan on their way to an indigenous community to observe the transportation systems.



Figure 2: (Clockwise from left): Dr. Sandra Talero, MD, Anne Rosenthal, Eric Wan, and Dr. Clara López de Mesa, PhD, enjoying lunch in Mitú, Colombia. The specials of the day were frijoles rojos, chorizo, and meat.