Stanford Service in Global Health Journal

Volume 1, Issue 1

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LETTER FROM THE EDITORS

Stanford Service in Global Health (SSGH) Journal began with a serendipitous grant from the Human Biology’s Bingham foundation and a desire to create an outlet for students and faculty to share their experiences in global health. We envisioned SSGH Journal becoming a publication that would promote awareness of international issues and spark dialogue about how students can be part of the solutions. The journal’s openness to anecdotal reflections, book reviews, and research-based submissions would set it apart from many of the publications on campus, filling a niche in the academic community.

In Volume I, we attempt to inspire readers by highlighting the accomplishments of Stanford undergraduates pursuing unique service projects around the world. At the same time, we hope to convey a realistic global perspective by featuring pieces that acknowledge the importance of cultural influences and challenges inherent to health work abroad. For the writers in this issue, successful trips have helped to solidify future plans in both medicine and international service.

Although all the pieces in this issue derive from experiences overseas (India, Philippines, Guatemala, Tanzania, Vietnam, etc.), global health includes work at home as well, in the low-income housing districts and the rural townships found across the United States. We believe that the dichotomy between “us” and “them” does not belong in a journal with “global” in its title. The right to the best health care possible knows no boundaries or state lines.

In the next issue, we will expand journal content to include photo essays, editorial segments, and interviews, in addition to the anecdotal pieces in this issue. Support from the Stanford community has been overwhelming, and we foresee a strong future for Stanford Service in Global Health Journal.

To our first generation of readers, we thank you for taking up this issue, and sincerely hope you enjoy it.

Sincerely,

Joyce Ho
Class of ’09

Stacie K. Nishimoto
Class of ’09

Credit: Vivian Wang
The Importance of Student Volunteers in International Health

by Jonathan L. Dunlap and Donald R. Laub

Over the past several decades, non-governmental organizations (NGOs) have emerged around the world to address the mounting need for international health relief. Humanitarians from every background and profession—including medicine, business, education, law, and engineering—have become involved in the effort to alleviate our global burden from disease and poverty. Recently, college undergraduates have joined this cause to save the world; unfortunately, in many cases their involvement has not been warmly received.

Student volunteers are routinely turned away by NGOs when all they want to do is help.

Leaders in the international health field often view undergraduates as a threat and criticize their lack of credentials, formal training, and capacity to create immediate positive change in the developing world. Consequently, student volunteers are routinely turned away by NGOs when all they want to do is help despite their mutual desire to serve those in need, our nation’s youngest humanitarians—who will soon become tomorrow’s leaders—are seldom given the opportunity to prove their true worth.

A movement to combat this line of thinking is underway at Stanford University. Several faculty members encourage their undergraduates to work internationally in order to experience first-hand the needs of the developing world. Students also learn that they can bring about positive change in many creative ways on international aid trips. For example, students have successfully assisted surgeons in the operating room, translated for nurses in clinic while taking height, weight and blood pressure measurements, served as patient couriers and assistant speech therapists, cared for children in overcrowded waiting rooms, and performed record keeping and medical photography. Stanford students have also formed their own 501c3 nonprofit organization to redistribute unused medicines to needy clinics, assisted with the operations of sister-nonprofits, designed solar light distribution programs to homes in rural communities without electricity, and even initiated a new academic course to introduce other students to the concept of international medical humanitarianism.

At Stanford, students are urged to gain what the authors call “psychic income.” Psychic income is the emotional and psychological capital gained when human interactions involve gratis rather than monetary exchange; it is the intangible income that causes so many humanitarians to involve gratis rather than monetary exchange; it is the intangible income that causes so many humanitarians to consolidate in cohesion, the path of one’s future life in a peak experience. This is especially true for young volunteers at an impressionable stage in their life. Experience in international service will inevitably shape the life trajectories of these eager, young minds; all students need is the opportunity to prove their worth.

... all students need is the opportunity to prove their worth.

travel is a difficult hurdle for undergraduates to overcome; when asking potential donors for money, students regularly encounter the following question: “Why should I donate money in a student who can’t do anything when I could donate to an already established NGO?” But is a donation to help a student purchase a plane ticket really such a bad investment? The answer to this question is a resounding no when considering the return-on-investment of the “multiplier effect.” In our case, the multiplier effect is the idea that, when a student goes on an international aid trip, there is a significant chance his or her life will be changed forever. The student will gain psychic income from the help he or she provides to a fellow human being in need, and in some cases he or she may even have a peak experience. If these events occur, a lifetime of service performed by that student to serve those in need would far exceed the monetary value of the small initial investment.

We hope that this introduction, along with the several articles to follow, will shed light on the enormous good that student to serve those in need would far exceed the monetary value of the small initial investment. If these events occur, a lifetime of service performed by that student to serve those in need would far exceed the monetary value of the small initial investment. If these events occur, a lifetime of service performed by that student to serve those in need would far exceed the monetary value of the small initial investment. If these events occur, a lifetime of service performed by that student to serve those in need would far exceed the monetary value of the small initial investment. If these events occur, a lifetime of service performed by that student to serve those in need would far exceed the monetary value of the small initial investment.
Two summers ago, I journeyed to the rainforest highlands of Guatemala on a Public Health Field Expedition to deliver basic ambulatory healthcare to indigenous Mayan villagers. Our group included a handful of Stanford undergraduates and three team leaders, each in their twenties and without official medical training. While in the remote village of Pueblo Nuevo, we held clinic, saw patients, and treated problems as best we could. When we encountered patients with problems needing serious medical attention, we accompanied them to the nearest hospital two hours away to ensure they received the care they needed.

The following is an account of three patients whose stories I will never forget.

**I**

I was walking down the road in quiet thought when a group of young foreigners eagerly approached me about a free clinic they were holding in our village only that day. They encouraged me to go if something was wrong.

Over time, the coarse walking stick I used had worn through the skin of my palm, leaving a raw gash across its middle. I immediately thought of my hand — over time, the coarse walking stick I used had worn through the skin of my palm, leaving a raw gash across its middle. As I uncured my fingers, stiff from old age, and held out my hand to them, they nodded and readily told me to come to the clinic. I felt inklings of hope begin to rise within me — perhaps they would be able to heal my hand. Following their lead, I made my way to the local school where the young foreigners were holding the clinic. They directed me to the line of patients outside waiting to be seen. I took my place in the line, slowly lowering my stiff limbs to the dirt ground, taking a seat to rest my aching body. I leaned my back against the wall as I began to wait.

She was sitting with her back against the turquoise-colored wall, wearing a bright blue blouse and a handmade shirt to hold back her hair. Her eyes gazed outwards with a look of despondency while her mind seemed to turn inwards, entrenched in heavy thought. I thought of the stinging pain she must have felt in her hand each time she had to use her walking stick. I wanted to ensure that we would be able to help her, so I walked over to the team leader to tell her about the woman’s situation. As I heard the team leader’s response, my spirits began to sink – we wouldn’t be able to do much for her. We thought of the stinging pain she must have felt in her hand that diarrhea would take on her aging body. I wondered if she understood, she nodded her head in affirmation.

* * *

Two foreigners came to my home today — they had heard I was sick and wanted to help. I invited them inside and heated up some coffee for them. We sat down around the table and began to talk. One of them could speak some Spanish, but it was still difficult to understand her. When she asked me what was wrong, I told her that my stomach had been hurting and that I had been having really bad diarrhea for several days. She asked me questions about the kinds of foods I ate, but I don’t think she understood my responses very well. Since my husband knows more Spanish than I do, he tried to help translate for us, but it was hard for him too. Then they gave me a bag of powdered food and showed me how to make a drink mixture with salt and sugar, telling me I should drink it several times every day.

She was wearing beautiful bright colors — a purple shirt tucked into a green apron — as she stood in front of us with her head drooped over her shoulders and her eyes gazing downwards. When we began to talk to her, she promptly invited us into her home — a small makeshift wooden hut. I tried my best to ask her questions. I thought about how she was doing, but communication was difficult since her first language was an indigenous Mayan dialect. After trying to understand what was wrong, I learned she was suffering from diarrhea. I thought about the agonizing toll that diarrhea would take on her aging body. I wondered if she was getting enough vitamins and asked her about what kinds of foods she usually ate, only to find that her diet consisted largely of coffee and corn. We decided to give her a powdered mixture fortified with vitamins, to help keep her adequately nourished. Since diarrhea could also severely dehydrate her, we showed her how to make an oral rehydration drink (similar to Gatorade) made from combining specific portions of water, sugar, and salt. I tried my hardest to clearly communicate to her how to make the drink and how important it was that she drink it several times a day. When I asked her if she understood, she nodded her head in affirmation. But after we waved goodbye and left, I began to worry.

**I**

I knew dehydration from diarrhea could be fatal, and I questioned whether she had appreciated my pleas for her to drink the mixture frequently. At the other night, I woke up suddenly feeling like I was drowning. I was scared. I felt tightness in my chest and didn’t know what to do. After a few moments, the feeling subsided. The next day I decided to go to the American clinic to see what was wrong. I described to them what had happened and they decided to take my blood pressure. They told me my blood pressure was really high, and they advised me to try to have less coffee and salt, since those foods contributed to high blood pressure. They also wanted me to go with them to the nearest hospital two hours away to see a doctor. They said they would be going in a few days in the early morning and that I could go with them. I was apprehensive. It didn’t seem like a big enough reason to go all the way to the hospital, especially when I didn’t really seem that sick.

She was a friendly, 43-year-old woman, and she began to describe the pain she suffered in her chest area. At
first, we thought she was describing gastric reflux because she was talking about a burning sensation. But then she began to tell us how she had woken up one night feeling like she was drowning. When she mentioned tightness in her chest, we decided to take her blood pressure. I was shocked when I read the results: 210/120 – an extremely high number. After consulting with the team leader, I was scared: I felt tightness in my chest and didn’t know what to do. 

I gave the woman the typical advice we gave about high blood pressure and then advised her to come to the hospital with us because hers was very high. She seemed skeptical. I encouraged her as best I could, but there was nothing we could do to force her to go. She said she would think about it and let us know, but we never heard back from her.

A few days later, we learned that she had died from a heart attack. The news itself about the woman’s death was saddening. But even worse, I had been the one to see and diagnose her. I felt responsible. I should have stressed to her even more that her blood pressure was dangerously high. But then again, how much would it have helped? Perhaps she would have had a heart attack at the hospital and passed away there instead. Or perhaps the doctors at the hospital could have put her on medication to lower her blood pressure, but it would have been unlikely that she would be able to reliably travel to the hospital and refill her prescription each month. As I thought about the different outcomes, it became convincing that we had discovered her high blood pressure when it was already too late. Had she learned about it years earlier, before it had become dangerously high, she would have been able to make lifestyle changes to prevent a heart attack. But by the time we discovered her illness, it was too late.

* * *

I

by Yao Yang

“*I was pre-med until I took organic chemistry*” is a familiar saying among Stanford undergraduates. For better or worse, each year a handful of students decide, on the basis of their unpleasant pre-med science course experiences, that medicine is not the right path for them. I easily identify with their frustrations, as I have frequently landed on the lower half of the bell curve in chemistry, biology, or physics. I entered Stanford as a presumptive pre-med. I registered for the requisite courses and quickly discovered that the sciences would not come to me effortlessly. Nonetheless, I continued with my pre-med requirements, with a gradually increasing degree of anxiety. I wondered whether my former academic cohorts had prematurely jumped ship, or if I was being stubbornly naïve in my refusal to look for an alternative.

While I cannot rightfully question my peers’ decisions, it never made sense to me that any class could extinguish the desire to pursue a career. The pre-med course of study carries no clinical element, making it an inadequate preview of what medical practice is like. The end of junior year was approaching, and due to my academic load, I had not yet taken advantage of any undergraduate shadowing opportunities. I had a nearly complete set of pre-med courses under my belt, and not an ounce of clinical experience. I felt a sense of urgency, that I had to make a final decision or risk graduating without direction.

A nearly complete set of pre-med courses under my belt, and not an ounce of clinical experience. I felt a sense of urgency, that I had to make a final decision or risk graduating without direction. Shadowing opportunities. I had a nearly complete set of pre-med courses under my belt, and not an ounce of clinical experience. I felt a sense of urgency, that I had to make a final decision or risk graduating without direction. Over spring break 2008, I combed various internet databases to find a suitable internship. I wanted to use the summer to immerse myself in a healthcare environment. Coincidentally, on the first day of spring quarter, an email appeared in my inbox advertising a student initiated “International Health Opportunities” seminar. I had

Second from right in green scrubs: Dr. Jorge Palacios

**Major Health Issues: Guatemala**

**Extreme Poverty:** More than half of all Guatemalans live in poverty, with almost 17 percent living in extreme poverty. Poverty is even worse in rural areas and among indigenous populations.

Sources: UNICEF: http://www.unicef.org

**Infant Mortality:** Guatemala has one of the highest infant mortality rates in Latin America. Infant mortality is largely caused by infection and malnutrition, and it accounts for 25% of all registered deaths in Guatemala.

Sources: http://ideas.repec.org/p/wbk/wbrps2/2066.html

**Social Investment:** Despite recent progress in areas of health and education, social investment in Guatemala continues to be one of the lowest in Latin America, making it difficult for Guatemala to develop a significant social agenda.

Sources: UNICEF: http://www.unicef.org

These three women had one thing in common – we couldn’t help them. To be sure, our team did have a positive impact on the lives of some, but our whirlwind volunteer effort lasting only four weeks didn’t come close to making a lasting difference for many of the patients we saw. Our efforts to intervene often came too late and were hindered by the circumstances facing the villagers: the woman with the gash in her palm didn’t have the option to rest her hand and let it heal – she needed to continue making a living for herself and walking with the aid of her stick, despite the persistent pain; the woman who died from the heart attack didn’t have the preventative education telling her to watch her diet, nor had she been able to go to the doctor to discover her high blood pressure before it was too late. Our short time in the village prevented us from addressing many of the problems we witnessed because they were a result of a deeper, underlying cause – the system itself, that left people with a means of getting to a hospital, without nutrition and health education, and without a way to earn a better living. By turning our attention to the failures in the system leading to these unjust circumstances, we can begin to address the source, working towards helping more people in a more sustainable way.

Sarah Mummah is a junior majoring in Human Biology and is the Founder and Executive Director of DreamCatchers, Inc., a nonprofit tutoring organization in Palo Alto helping underserved students. Sarah is passionate about making a difference in underserved communities, and she is most interested in areas of public health and education. She has a love for photography and an enthusiasm for traveling to Latin America, and she plans on pursuing a career in public service.

### Catching the “VIRUS” in Ecuador

Credit: Yao Yang

“International Health Opportunities” seminar. I had the

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### Extreme Poverty

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### Social Investment

Despite recent progress in areas of health and education, social investment in Guatemala continues to be one of the lowest in Latin America, making it difficult for Guatemala to develop a significant social agenda.

Sources: UNICEF: http://www.unicef.org

**IT**
I had a vague understanding that burn care had rough edges. I was in the country for three weeks. There had been almost no time to put together a detailed agenda, so I put myself in Dr. Palacios’ capable hands. The following Monday, Dr. Palacios picked me early in the morning and drove to Luis Vernaza. Mondays were his days off, so he was able to personally visit all the Burn Unit to check on his residents and review all the patients under his care. My nerves kicked in as I imagined what I might see there. Would I find it frightening or overwhelming? I had a vague understanding that burn care had rough edges.

The unit entrance looked like it was added to the top of a parking garage, an afterthought concrete ramp leading up to nondescript double doors gave the impression of a loading dock. I drew a few straws from a couple of ladies sitting on park benches outside. I followed Dr. Palacios past a uniformed guard into a room full of strangers in white coats. I felt out of place in my street clothes and schoolgirl book bag. To my relief, most of them spoke English. I was welcomed by them. After some brief introductions, the throng of burn unit staff moved the first of two wards.

The outer ward housed patients who were further along in the treatment process. While many were still in pain, they were all well on their way to recovery. The majority were male, and had sustained injuries from occupational sources. The doctors explained that the ones missing limbs were most likely victims of their own doing. Their poverty had driven them to attempt to tap electricity, with grave consequences. The staff moved from bed to bed, observing as Dra. Lorena Escudero Castro, Dr. Palacios’ chief resident, gave briefings on each case. I was finally on the burn unit rewarding and inspirational. I dedicated my professional life to medicine.

Major Health Issues: Ecuador

NUTRITIONAL INSUFFICIENCY: Nutritional problems tend to be regionally distributed. In rural areas where poverty is prevalent, chronic malnutrition rates among children remain upwards of 50%, with some estimates as high as 95%. Urban areas suffer the opposite problem. A national study found that 14% of urban children under 8 years of age were overweight or obese. Poor diet and increasingly sedentary lifestyles are among the suspected factors.

SOURCES: WHO(PAHO): http://paho.org

MAN-MADE HEALTH RISKS: Due to economic hardship in poorer communities, issues such as alcoholism and violence tend to contribute to mortality and morbidity among the male population. A 2002 WHO statistic estimated that 4% of fatalities were attributed to violence, making it one of the top ten causes of death in the country. In addition, occupational hazards make males more susceptible to fatal injury than females.

SOURCES: WHO(PAHO): http://paho.org

INADEQUATE ACCESS TO HEALTHCARE: After a period of economic crisis in the 1990s, government spending was reduced, affecting the quality and availability of public health services. The WHO estimates that only 25% of the population has regular access to public or private health care resource, and only 6% has any type of health insurance. Most of the underserved population consists of indigenous Amerindians from rural areas of the country.

SOURCES: WHO(PAHO): http://paho.org

A male patient with extensive tissue damage from electrical burns undergoes aggressive debridement.

Yao Yang is a senior majoring in Music, Science and Technology. In the years following graduation, she hopes to continue doing health-related work abroad before applying to medical school.
Olivia: My Life of Exile in Kalaupapa

by Stacie Nishimoto

There are 26 switchbacks to the bottom of the Kalaupapa trail on the Hawaiian island of Moloka'i. As one descends into the trees, wild goats peek out, leaping from boulder to boulder, and sunlight drifts and scatters onto the gnarled roots lining a narrow but well-worn path. Mule packets litter the steep steps and beads of moisture from the air soak through cotton tanks and fabric visors, such that visitors are recommended to carry two well-stocked bottles of water or Gatorade. It’s only when one reaches the bottom, where the path opens to a deserted beach, completely void of footprints or trash, that the intensity of the place can be felt.

In Olivia: My Life of Exile in Kalaupapa, Olivia Robello Breitha recalls a piece of Hawaii’s history – the leprosy quarantine on Kalaupapa – that threatens to be forgotten as the old residents pass away and Kalaupapa’s population dwindles. The trail leading down the mountain is mostly trod by tourists now or the few members of the local clinic who decide not to ride the small cargo plane which serves the local airport. In her memoir, Olivia Breitha charts a haunting life of exile from 1934 when she discovered blisters on her legs and the embarrassing “monkey show” (where patients were asked to strip and then pokèd and prodded by physicians) to her mother’s death, her love for a fellow patient, and her continuing battle for justice. Although dealing with extreme prejudice and a disease that would eventually cripple her, Ms. Breitha makes it clear that the memoir is not written with revenge or pity in mind. She chooses instead to focus on the good and inspiring individuals who made her experience in Kalaupapa extraordinary and bearable. With occasional self-deprecating humor, Olivia adopts a no-nonsense tone with sly asides, offering petty commentary on town officials and fellow patients. Always practical, she relays the day-to-day economic and social triumphs an ordinary historian might miss.

However, readers unaware of Kalaupapa’s history may initially find themselves lost in frequent references to a past the author assumes is common knowledge.

When the first “shipments” of Hansen’s patients arrived in Kalaupapa, Moloka’i in 1866, little was known about leprosy and its transmission. Quarantine of afflicted patients on the isolated peninsula was a protective measure by the state demanding extreme personal costs. The first years of settlement were brutal, and often a sentence to Kalaupapa meant an early death, either in the rocky undertow near the coastal drop-off point or in the vicious struggle to survive on land. Eventually, missionaries brought faith and a sense of community to the island; many, however, such as the recently recognized Catholic saint Father Damien, contracted the disease during their stay, and the stigma attached to Kalaupapa continued to painfully affect the lives of its residents for decades.

Though a brief 104 pages, (including “frequently asked questions about leprosy,” and several black and white photos,) and employing extremely plain diction, there are moments when Olivia’s compassion and hard honesty make one wonder at the depth of reflection she is able to convey in such short space. In addition, she inspires, in her own down-to-earth way, by sharing a story of exile full of persistence and forgiveness. For those looking for an extensive history of Kalaupapa, this memoir would undoubtedly disappoint, but for those interested in exploring one of Hawaii’s most disastrous errors in health care from an anthropological and cultural viewpoint, Ms. Breitha’s memoir is a must-read.
Vietnam

Another settlement isolated from most of the district and civilization by thick forestry and located near a community clinic.

paranoid that the mosquito net draped above my bed wouldn’t be sufficient to keep away the mosquitoes. Worries and thoughts floated through my head. I was a green freshman with no medical background but still wished to be an asset to my IMO team. The demands of my research project also seemed menacing. Though I wanted to make a positive impact by properly helping the community, it was still intellectually exciting to learn the ways that our limited supply, we were instructed to only hand out medication where it would be most effective.

For most of the locals, we were their only access to health care, and each patient eyed our supply of medicine hoping for a miracle cure that we could not provide for their chronic arthritis, diabetes, or glaucoma. For me, it was eye-opening to see the reality of a nonprofit at work, the consequences of little funding, working within a foreign community, and our own very real limitations. I was no longer sure that my efforts in the clinics and research project would translate into lasting impacts on the community.

Though we could not cure many of the ailments, the team was able to make a difference in the lives of some of our patients. We found heart problems in some and even arranged for a small child to receive a free procedure to fix a birth defect at a nearby hospital. As time passed, I eased more into my role as a member of the team. I conducted physicals, asked relevant questions, and comforted patients in my limited Vietnamese.

Clinic days were physically draining but psychologically rewarding. Though my medical knowledge was still limited, I developed a confidence that relayed into better interactions with patients. In fact, the whole team was palpably improving both as individuals and as a unit. While I soaked in my time at the clinics, my project was still underway. I averaged about fifteen to seventeen surveys a day, each revealing facts about the lives and habits of the Go Quoo community. It was not a large number, but it was still intellectually exciting to learn the ways that community members found basic access to clean water.

It was during this hectic period, when we shuttled from village to village around our base camp, that the local medical authorities came to visit us at the guest house. Through meetings, IMO hoped to work with the community to better provide for their needs. However, the communication clearly communicated their disappointment in our inability to examine everyone who was in need and to provide free medication for all. It was clear that we had limited manpower and supplies, and turning down patients and selectively handing out medication was a necessity. Our relationship soon disintegrated due, in part, to miscommunication when a situation could not be found. Eventually, the community’s authorities decided that it would be best if IMO refrained from running any more clinics.

At first, my research project and clinical experience were pushed to a halt. I grew frustrated and disappointed.

I realized that I had wrapped myself entirely in a mission to help this community yet had not taken time to notice their extraordinary self-reliance and capability of accomplishment.

that I would no longer be able to accomplish my two goals for the trip. However, having no other choice but to explore the city or frollygag around the guest house, I spent a few days seeing the town. It was odd how the world began to open up to me when my worries and stresses disappeared. Without the constant pressures of stereotypical college life, I started to become aware of the people, their manors, and their work. I gained appreciation for the community and their culture. For the first time, I noticed the people walking and shopping through the market. I realized that I had wrapped myself entirely in a mission to help this community, yet had not taken time to notice their extraordinary self-reliance and capability of accomplishment. This town was thriving in every sense with its people working uniformly to sustain their home.

I could not cure the elderly of their glaucoma or the children of their cavities, I recognized that I could still make a lasting impact. This epiphany hit me so suddenly. The sea breeze was blowing behind the air. Sitting in the local Internet café, I checked my email. Some of the local elementary school children were playing a computer version of Dance Dance Revolution. Though they seemed focused on the game, they nervously glanced in my direction every few minutes. Eventually, one of them gained enough courage to ask me in hesitant Vietnamese if I was from the United States. As I left, one of the boys promised, “I’ll study hard in school, go to America, and visit you.” He beamed and nodded vigorously.

Walking home, I realized that while I had been taking in the local culture and life, I had forgotten something essential: I carried my own American culture with me, enabling me to touch the consciousness of the many people around me, such as the little boy. I had been so focused on making a positive difference through my work with IMO that I had forgotten the changes that I could make by simply being a guest in a community. With my free time, I could finally soak in the lessons taught by the people. It was not until IMO had been shut down that my mind was clear enough to see this important fact. Misunderstandings and insurmountable obstacles stopped only one of my relays with me, Catherine Le is a sophomore at Stanford University, majoring in English with an emphasis on creative writing. She enjoys volunteer work and hopes to one day travel to India and Thailand to work. After graduating, she hopes to pursue a career researching in inter-national research.
At 4 a.m., in the miserably sticky heat and with the constant blaring, bleeting, and beeping of traffic outside, I sat at my little table and started writing in my travel journal—trying to remind myself why I had ever thought it was a good idea to travel to India by myself. I wrote about wanting to challenge my comfort zone, and about humanitarianism, self-education, adventure, and a desire to travel. At this point, I was so far outside my comfort zone that I had lost sight of all these other motivators; I felt scared, vulnerable, and physically sick from the amount of over-stimulation. More than anything, I wanted to return home to the relative Utopia of quiet, well-off suburban landscapes and western amenities.

When I applied in Spring 2007 to travel to India with Projects Abroad, a leading international service organization promising experiences “more worthwhile and genuine than those of the average tourist,” I never imagined I would be in this situation. However, the three weeks I spent visiting hospitals and clinics in areas such as Sivakasi, Manamadurai, and Trivandrum, taught me to see though the conditions and circumstances to the people living them everyday. I especially came to better recognize the huge disparity between developed Western medical care, technology, and conditions, and the deficient treatments available in other, developing parts of the world. By the end of my trip I had gained a great respect for the pledge Projects Abroad had set forth; by immersing myself in a true cultural education, I accomplished all my original goals and had one of the most affecting experiences of my life.

I spent my first day of observation at the Kalpana Gynecological Clinic in Sivakasi. Right off I noticed that professional labels meant much less in India, where people only turned to paid medical care when it became an unavoidable necessity. A standard doctor’s visit cost around 150 rupees (about 3 U.S. dollars), a seemingly insignificant amount, but for many would-be patients it was the difference between having dinner that night or not. As a result, patients attended the nearest, most fiscally convenient health resource, irrelevant to specialty. Indeed, over the course of the morning Dr. Kalpana saw women in varying stages of pregnancy, but she also treated an infected sore on a young boy’s foot, stitched a woman’s torn earlobe back together, and prescribed medicines for fevers and chest pains. I was taken aback that people had to forgo medical care because of such an ostensibly small charge, and while I was glad to see Dr. Kalpana care for all her patients, it did not feel entirely appropriate when she treated conditions she had not been trained for.

The lack of suitable tools was also vividly apparent. Dr. Kalpana had only one pair of second-hand forceps, so appropriated when she treated conditions she had not been trained for. When the doctor at the Anurra Pediatric Hospital tried to explain the thyroid deficiency causing a 9 year-old’s goiter, I finally learned to waggle my head axially bob to indicate “yes” or “no Tamil and they spoke as the traditional head incident for all involved.

Her workspace was separated from the waiting area by thin curtains, and her examination table was a metal cot, devoid of any cushions or sanitary paper. There was one other room in the building, which was empty except for three more metal cots, and this was where her patients gave birth.

My medical experiences over the following days were varied, but all contained similar features of quality deficiency and make-do. It was also during this time that I started to form an attachment to some of the people and their culture. When the doctor at Anurra Childcare Hospital had to drive to the next town to get a basic X-ray for a patient, I spent two surreal hours talking and bonding with the teenage nurses Prabha, Odi, and Manjula. This was actually a significant feat, as I spoke much English—resulting in a humorous, moving incident for all involved.

A surgeon and two aides performing a procedure to remove a tumor from a patient’s tongue.

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At 4 a.m., in the miserably sticky heat and with the constant blaring, bleeting, and beeping of traffic outside, I sat at my little table and started writing in my travel journal—trying to remind myself why I had ever thought it was a good idea to travel to India by myself. I wrote about wanting to challenge my comfort zone, and about humanitarianism, self-education, adventure, and a desire to travel. At this point, I was so far outside my comfort zone that I had lost sight of all these other motivators; I felt scared, vulnerable, and physically sick from the amount of over-stimulation. More than anything, I wanted to return home to the relative Utopia of quiet, well-off suburban landscapes and western amenities.

When I applied in Spring 2007 to travel to India with Projects Abroad, a leading international service organization promising experiences “more worthwhile and genuine than those of the average tourist,” I never imagined I would be in this situation. However, the three weeks I spent visiting hospitals and clinics in areas such as Sivakasi, Manamadurai, and Trivandrum, taught me to see though the conditions and circumstances to the people living them everyday. I especially came to better recognize the huge disparity between developed Western medical care, technology, and conditions, and the deficient treatments available in other, developing parts of the world. By the end of my trip I had gained a great respect for the pledge Projects Abroad had set forth; by immersing myself in a true cultural education, I accomplished all my original goals and had one of the most affecting experiences of my life.

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India

India that has been largely eradicated in the rest of the world. In my short time there I saw multiple cases each of malaria, tuberculosis, typhoid, cholera, dengue, dysentery, and jaundice. It was hard to accept that so many people were unnecessarily suffering. I had known these diseases existed, but seeing them firsthand, knowing that they are avoidable or treatable, was more disturbing than I had expected.

Back in Sivakasi near the end of my stay, I shadowed Dr. Arurgir, a surgeon. Dr. Arungiri was extremely knowledgeable and experienced, and he seemed to genuinely enjoy explaining everything he did. He was an exemplar of the fact that India’s healthcare woes are not human-driven, yet his practice was just as shocking as the others. His common worktable was a wooden bench. It was on this bench that I saw him clean and redress shrapnel wounds and infected cysts. It was also where he drained the blood and pus accumulated in an abscess the size of a cantaloupe on a woman’s hip (the result of a flu shot with a non-sterile needle). His advanced operating room was hardly better. It contained another of the ubiquitous metal cots, and secondhand, outdated technological equipment. The lack of quality equipment and medical care in India is truly a travesty. Seeing a worried mother, tears in her eyes, look on as a doctor examines her ill child affects the same response no matter what country you are in—it is only too easy to imagine it is your sibling or friend or child on the table. How can it be that there is such a huge disparity in healthcare in developing countries and Western civilization? What are the underlying causes? Most importantly, how do we fix this? I recognized a serious injustice in this situation, yet as no one had intentionally inflicted it upon the country it was intellectually difficult and emotionally troubling to understand how it had come about to such a dire state.

Since I have returned, I have committed myself to trying to answer some of these questions, yet the answers are still exorbitantly complex. Biogeography contributes, with aspects like climate change, natural land barriers, pollution, and population density. There are socioeconomic factors unique to each country like trade, national per capita income, and ethnicity relations, which limit prevention facilities as well as the ability to treat the affected. Meanwhile, we are faced with controversial issues about international humanitarian aid and intervention. It is going to take a lot of time and collaborative, interdisciplinary effort to understand these issues in depth, but as long as there is the will, I am certainly hopeful that there is a way.

Currently I am involving myself in opportunities to both learn more, personally, and to help bring other people’s attention to the topic of international health inequality. In my first term at Stanford, I have taken a class on the biogeography of disease, become actively involved in a leadership role for Stanford Association for International Development, joined Rotoract, an organization for international service, and worked with the Stanford Service in Global Health Journal, all with my experience with Projects Abroad in India in mind. I encourage everyone, the next time they travel, to spend at least some of their time immersed in an experience on as a doctor examines her ill child. Knowing that they are avoidable or treatable. I had known these diseases existed, but seeing them firsthand, knowing that they are avoidable or treatable, was more disturbing than I had expected.

Major Health Issues: India

Blindness: India has the highest ratio of blindness to total population in the entire world, with estimates of the totally blind at 1.5 million people, and the partially blind at 3 million people. The major causes are cataracts, infantile ophthalmia, and trachoma. Sources: India Together: http://www.indiatogether.org/health/

Tuberculosis: India accounts for slightly more than one-fifth of the global number of TB cases, and there is concern that the percentage will increase due to the current spread of HIV in India. More than 500,000 people die from TB in India every year; that’s about one victim every minute. Sources: Foundation for Sustainable Development: http://www.fsdinternational.org/

Malnutrition: Half of all children under four are malnourished in India, and 66% of women, who in poor families often give their meal portions to husbands and sons, are anemic. It is estimated that malnutrition is responsible for 22% of India’s disease burden. Sources: WHO: http://www.who.int/countries/ind/en/

Kelley Lacob, class of 2012, plans to major in Science, Technology, and Society with a focus in International Health and medical anthropology. Outside of class, she enjoys photography, writing, volunteering at local elementary schools, and playing lacrosse.
These forces confront each other with conflict and misunderstanding in many other mundane situations. But in Cebu City, these forces united for a powerful cause: gastrointestinal worm control and education. This summer I had the special opportunity to engage in Project Philippines 2008, a program that began with the effort of the Southeast Asian Service Leadership Network. Project Philippines 2008, or PP08 for short, aimed to raise awareness about gastrointestinal parasites by designing and disseminating prevention-related media.

Cebu City, Philippines: Higher Forces at Work

In the elementary school of Alaska Mambaling in Cebu City, Philippines, I witnessed a unique overlay of culture, belief and tradition.

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Our team of fifteen college students from across the world and a group of talented local Filipino high school students developed a service project centering on health promotion against GI worms. While we engaged with the students to address the local epidemic, we also worked to equip these local advocates with the leadership skills and confidence necessary to sustain the campaign.

Meeting “My Advocate”

Each college student partnered up with a high school student in a mentor-mentee pair. The local high school students enriched the planning process for the media development and the health fair curriculum. During the first week, I met my mentee, Sara Mae. She was a fourth-year student at our partner high school. Shy and timid at first, after chatting, we moved onto our first ice-breaker: to discuss our career goals and hopes for the future. Sara Mae described her passion for biology and working with people and described her journey to being accepted at this magnet high school. Behind her dark eyes, I could see her passion for becoming a physician vivify her words and thoughts. She offered me some details about her family and how proud of her they had been of her acceptance. Sara Mae rattled off her major goal for her SEALNet experience: to overcome her shyness and work on being more assertive.

Week 1: Media Development and Publishing

During the first week, we worked tirelessly with the high school students on crafting mission statements and action plans for our project. Three teams designed comic books, fans, calendars, stickers and a pamphlet for our media campaign. We deliberated on the messages for worm prevention. These discussions culminated in four steps for prevention: wash your hands, cut your nails, wear your shoes, and take the de-worming pill. As a member of the Adult-Associated media team, I joined in the process of the pamphlet development and calendar design. Initially, our first meetings with the high school students passed in silence and hesitance. We tried to encourage the high school students to speak but were not successful with our initial attempts. Out of our back pockets came the crowd-pleasers: humor, music, and even direct praise and encouragement. After a few hushed whispers and the encore performances of one of our talented project leaders, the walls of age and culture crumbled gloriously. The exchange of ideas had never been so exhilarating.

The high school students took control of the media campaign process amazing. They evaluated our pamphlet information for cultural appropriateness. They successfully translated an entire text into the local dialect Bisaya. They managed to design an entire splash page for the calendar in a matter of hours. And they came to a consensus on the mascot of our entire children’s campaign: the Worminator.

The Worminator would be the comic book hero who delivered Juan, a Filipino schoolboy, into a magical world that would teach him the importance of prevention against worms. Each mystical land they visited would reflect the value of one of our four prevention messages. The story would end with Juan overcoming his fear of a worm-stricken school bully. The Children-Centric media team drew and colored the Worminator for our entire children’s campaign: the Worminator.

Week 2: Classroom Talks & Worm Day 2008

We culminated our first week of in-classroom preparation with a visit to the riverboat community of Alaska Mambaling. We toured the shantytowns and stilt houses with our community partner, Share-A-Child, a Cebu-based NGO dedicated to providing educational opportunities for disadvantaged youth. The community was built on the shore in two distinct parts. The school and the relatively wealthier houses were located onshore, while the struggling poor in stilt houses were suspended above the dirty Pacific Ocean. We tiptoed over the stilt bridges into the neighborhood and crept around the dwellings ever so carefully. I was strolling through livelihoods and trudging along with my Western judgments into a new world of subsistence. How could such a population be marginalized? What were they doing to improve their own situations? Could they do anything? Where was the government in all this? I’d never been more conflicted. Each footstep was starting a journey into a new way of life that as students we could see but never feel.

My experience with the high school students and the community left me brimming with the positive forces of the world’s culture, belief, and tradition.

88% of the children in Alaska community suffer from GI worms. But it looks as if they were suffering from so much more—unclean water, poor infrastructure, failing schools, and corrupt governance. Suffering from what is sometimes an asymptomatic disease did not make the

Students received copies of the prevention comic book after completing booths at the fair.
about preventing worms. The event united the community with the message of prevention.

After Worm Day 2008, I began to meditate on how community service efforts link into development at a grassroots level. Our short-term efforts could translate into long-term change with the help of the students. We were challenging the status quo of work status at Alaska Elementary. As outsiders, we had worked to challenge the young high school students to develop their own senses of service leadership. The high school students dreamed of a better Philippines that was indeed possible with their hopes and passion. At the same time we had forced them to confront their own personal qualities, our team had created self-reflection and group dynamics. On the bus ride home, Sara Mae expressed how grateful she was to have seen the Alaska community: it was a new inspiration for her to pursue her dreams of becoming a physician. I must say her passion was infectious.

Success and ‘Beyond’

I am still unraveling my experiences from this summer. The gravity of what we aimed to accomplish and did in fact accomplish stuns me in hindsight. I have never experienced a greater camaraderie and appreciation for new cultures in a project setting. The high school students were simply inspirational. When I started to criticize my own belief about sustainable development and community health, I could look to Sara Mae and her classmates as the true changes that we were leaving. I had no doubt they were to be new local agents of change. GI worm control and education may be only the start of their endeavors. They would fill the lives of their fellow countrymen with the same hope, enthusiasm, and unwavering strength of purpose they had demonstrated during the project. Sara Mae had made admirable improvements from the start of the project. She was participating in group discussions and standing more on the faith of her assertions. In fact, she inspired me to be more assertive in similar situations with her newly unearthed confidence. My experience with the high school students and the community left me brimming with the positive forces of the world’s culture, belief, and tradition.

Meera Subash is a senior majoring in Human Biology with a concentration in Public Health and Genetic Disease. She plans to attend medical school in the future. Next year, you can find her doing some globetrotting, marathon training, and getting her fix of art museums.

Handwashing is one of the four major steps for preventing GI worms.
It is my belief that the world is not changed by those who see the glass as half full...

It is experiences like these that are unique to volunteering in Africa and that I consider the most formative, both academically and personally. As a Human Biology major with an interest in underserved community health, I was looking for first-hand experience with the subject matter that I had been studying. With the help of student groups like Student Association for International Development and wonderful professors in my department like Bob Siegel, I located summer projects in East Africa that matched my interests and had that indescribable sparkle of life-transforming promise.

Opportunities Abroad

The flames from the hurricane lantern illuminated the room as we tried to stay awake into the wee hours of the morning, waiting for the baby to arrive. For the past five weeks I had been living and working in a rural village in Tanzania teaching about AIDS, so our team of three American volunteers was very honored when the local doctor asked us to assist with a delivery that night. The clinic had no electricity or running water, so we fetched water from the tap outside, kept the oil lanterns lit, and hydrated the expectant mother with a steady supply of tea to soothe her excruciating pain. At four in the morning the baby’s head appeared in the birth canal, and within minutes I was holding a screaming bundle of joy while all of the elated aunties stood around me cooing at their healthy, new niece.

Village Hopecore

My first project was based in Kenya about 225 km from Nairobi in Chogoria, a rural town debilitated by poverty and AIDS. For four weeks, a group of Stanford students and I worked on a project with Village Hopecore International (VHI) that would help fundraise microloans for HIV-positive individuals. Village Hopecore was started over 20 years ago by Kajira Mugambi, a UCLA-educated lawyer from Chogoria, who had returned to start the most aggressive poverty eradication NGO in all of Kenya. VHI is primarily a microloan institution, but they also provide their members with health and educational support in order to ensure the success of each loan recipient.

My greatest motivation for working with a microfinance organization stemmed from my belief that the etiologies of poverty and poor health are essentially disconnected from the individual choices and actions of the people trapped in their clutches. Living in Chogoria proved to me that positions in life are almost completely determined by the situation into which one is born. For example, I have never had the opportunity to experience poverty, while some of my African counterparts have never had the opportunity to experience anything but poverty. If the distribution of opportunities for prosperity is completely arbitrary, then it is a socially just and obligatory act to provide those opportunities. For me, that meant working with Village Hopecore.

Village Hopecore has a very simple model of microlending. Potential loan recipients organize into groups of twelve and must first spend several months performing different tasks in order to prove that they can handle money and will repay the loans. If they are approved, the group will receive individual loans in the amount of $300, with each member acting as the collateral for every other member. If anyone fails to

Credit: Josh Wong

Josh dancing with the people of the Kimeru village.

Credit: Josh Wong

Josh holds the beautiful baby girl that he helped to deliver.

Credit: Josh Wong
Kenya

The etiologies of poverty and poor health are essentially disconnected from the individual choices and actions of the people trapped in their clutches.

Most valuable for me, however, was not the report at the end, but the relationships I built through interviewing. Living in our Stanford bubble, we become accustomed to textbook labels applied to populations of the developing world and forget that the people I interacted with are not merely a data point. They were actual individuals with goals and a future, for whom I gained far more than I gave, which caused me to critically evaluate as half empty. I know that I will certainly return to the community that I worked in Africa like others who have volunteered abroad, I found this self-evaluation common but not necessarily detrimental. It is my belief that the world is not changed by those who see the glass as half full, but by those who take action to refill a glass that they have critically evaluated as half empty.

Although my project did have a measurable impact on the communities we served, I know that I gained far more than I gave, which caused me to critically evaluate as half empty. I know that I will certainly return to the community that I worked in Africa like others who have volunteered abroad, I found this self-evaluation common but not necessarily detrimental. It is my belief that the world is not changed by those who see the glass as half full, but by those who take action to refill a glass that they have critically evaluated as half empty. I know that I will certainly return to the community that I worked with in Africa like others who have worked abroad. We all whetted our appetites for future international development work and have added fuel to the fire of social justice.

Josh Wong is a junior majoring in Human Biology and studying the intersection of social justice and infectious diseases. His programs include: Patient Advocacy Program, Pacific Free Clinic, the Haas Center Public Service Leadership Program, Student Association for International Development, Village Hopecora International, and research at Gans Laboratory. Eventually, he wants to track epidemics and infectious diseases around the world.
The Most Blood I’ve Ever Seen in One Day

by Jared Sun

This is a story I won’t tell: the story of how I traveled to South Africa and tried to set up a community-based emergency medical system in the most violent township of South Africa, how I received the news of multiple family deaths as I struggled in a country wrought with international conflict, racism, xenophobic lynching and nationwide riots.

I have a much greater story to tell. This story is not about me or my project. The true individuals who should be honored are not the ones who try to change the world but the people and individuals who must endure the hardships that are their lives, every single day. This story is about a nurse I met at a rural hospital in South Africa, and the four-hour glimpse into her life that transformed my understanding of South Africa’s public health challenges.

Sister Beukes was a sturdy Swedish born woman in her sixties with the commanding voice of a war general. She was the head nurse at Clanwilliams Hospital, which I visited during my quarter abroad in Cape Town in the spring of 2008. Yet from her weathered face, red army general shoulder straps, and a light splatter of blood on her shirt I could tell that she was much more than a hospital nurse or worker: she was the commander.

Introductions were short. She was standing alone in the middle of a “Casualty Room” with over ten miserable patients, whose injuries included two fractures and a stab wound. I was told that Sister Beukes was a kind and caring woman, but I couldn’t help being intimidated by her overwhelming power. Her heavy Afrikaans accent only added to her militant demeanor, and the fact that she didn’t seem phased by the blood and death around her scared me at first.

“I already know how I’m going to die.”

“Well! What questions you have for me?” she brusquely asked while inserting an IV needle into the temple of a two-year old girl’s head.

It took me a while to figure out that Sister Beukes wasn’t upset, she was just Afrikaans and very aggressive. When you are the only nurse on duty for a hospital plagued with gunshot wounds, stabs, drugs and alcohol, you forget how to be gentle. The moment there was a lull in the Casualty Room she grabbed my arm, completely encircling it with her enormous and rough hand, and pulled me into formation with her in the hallway.

She took me down the hall and showed me all the wards. It was a war zone. Each room had at least five to ten patients, sickly and distraught. The hospital had no incubators, so mothers with premature babies held them between their breasts for warmth.

The true individuals who should be honored above all else are not the ones who descend and change the world but the people and individuals who must endure the hardship that is their life, everyday.

Winnie Cele is a community health worker in her rural Zulu town. Though she has never left her village, she helps educate her neighbors about health issues on behalf of doctors from Durban.

Above: Street peddlers sell their goods along Cape Town’s picture-perfect beaches. The peddlers often mark their wares for much higher than they’re worth, but they are still cheaper than anywhere else buyers can get them.

Below: Townships like this one are a common sight throughout all of South Africa, especially near large cities just miles away from centers of extreme affluence and luxury.
South Africa

Her name was Chrizelda Skippers, and she was a sweet black woman of only 18 years with a pretty face—well, at least when she wasn’t contracting.

Then Sister Beukes burst into the room with the supplies, and the delivery began. The head nurse became more powerful than ever as she clenched Chrizelda’s hand throughout the entire process. “Drakom! Drakom! Hardha! HARDAAH! DRAKOM MAMA!! HARDAAH!!!”

For thirty, paralyzing minutes I stood in silence while she single-handedly delivered the baby.

In one afternoon I saw a dozen stab victims and over two dozen infant deaths. The Casualty Room was consequently being filled with a steady stream of young boys being brought in from the local rugby tournament happening that afternoon. It was another typical day for Sister Beukes. “Understocked, and understaffed,” she kept saying. As taboo as it was to say, she made it clear that the hospitals of South Africa had been in much better conditions under Apartheid, and that ever since it ended in 1994, hospitals had gotten worse. “The government gives us no money—the old government did.”

She was frustrated, but not deterred. “AIDS, AIDS, AIDS!” Sister Beukes exclaimed while cleaning the delivery tools in a nearby sink. “If these people aren’t drinking or stabbing one another then they’ll die of AIDS!”

I tried to make sense of her frustration. I tried to understand why this strong and hearty woman came into work day after day despite so much stress. “So…”

And this,” she said as she brought me into another room, “is where we put the stabbed men who are still SO INTOXICATED that we can’t even treat them.” She was clearly angry and frustrated at the damage that was done to the men. She snatched some of their medical records and threw them at me to show that some of the men were frequent visitors to the Clanwilliams Hospital.

“I if you take away the alcohol from this place, the stabblings will stop 100%, and they are over half of our patients,” she said. She walked to a pile of bloody blankets with blood dripping to the hospital floor. I then saw that there was a pair of feet coming out from one side and I stopped, thinking that the person was dead. Confused about what had just happened, I ran after her. I burst through a few doors and that’s when I saw it: a woman in labor about to give birth. Embarrassed, I started to back out of the room but Sister Beukes said, “Where are you going? You can stay.”

Sister Beukes then left the room to get some supplies, leaving just me and the mother alone. I asked her a few questions, which she answered between her contractions.

The rest of the hall was a collection of confused patients mostly with either maternal problems or stab wounds. There was a room with the window covered - Sister Beukes said she did not even want to show me what was inside. She never told me who was in there.

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“Sometimes, if we run out of room we put the patients in the hallway and treat them there,” she said. I never found out who “we” actually was; the only other medical

staffing in the building was a doctor who only spoke Afrikaans.

I wanted to ask her another question, but before I even finished the sentence, her walkie-talkie went off in Afrikaans and she started jogging in the other direction. Confused about what had just happened, I ran after her. I burst through a few doors and that’s when I saw it: a woman in labor about to give birth. Embarrassed, I started to back out of the room but Sister Beukes said, “Where are you going? You can stay.”

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Major Health Issues: South Africa

HIV/AIDS: An estimated 20% of adults (5 million) are infected, with the highest rates being among pregnant women (37%). Initially, rapid infection was exacerbated by various government officials denying its role as a major health threat. To date, HIV/AIDS has mostly affected the black population, resulting in approximately 1,200,000 orphans in South Africa.

Tuberculosis: South Africa has one of the highest rates of TB in the world, which is in part due to AIDS’s debilitating affect on the immune system. In 1997, 52% of reported TB cases in the world were from South Africa, with a third of these patients also being infected with AIDS.

Crime-related Injuries: South Africa has the second highest rate of murder, and the highest rates of assault and rape in the world. Rapid development and urbanization, in conjunction with population growth and poverty, has lead to a substantial increase in violence. A recent nationwide xenophobic riot against African migrants resulted in 300,000 injuries and 10,000 displaced.

Jared Sun is a senior majoring in Human Biology with plans to complete his MD/MB program and go into trauma surgery, international health and health administration. An Orange County native, he is also a member of the Stanford Varsity Sailing team and is currently completing an honors thesis on neural regeneration after spinal cord injury. While in South Africa, Jared also went great white shark cage diving, paragliding, and got within thirty feet of wild hippos.

South Africa
More Than HIV

Nutrition and Malaria Affecting HIV-positive Entrepreneurs in Kenya

by Laura Huaman

Entering a small chamba (farm) in Chogoria, a rural Kenyan village, I am welcomed by a tall, well-built, African woman wearing an orange scarf around her head and a pink blouse. Her name is Lucy Rakeri. She greets me with a hesitant smile, but her big brown eyes betray her warmth and caring nature. She quickly guides me to her tin-roofed, colorfully striped wooden-walled house. We sit across from each other on two old chairs and she quickly knew it was malaria. Without complaining, she explained that it was not a matter of whether people get malaria, but a matter of when they do.

She quickly remembered Lucy and the extra burden her episodes of recurrent malaria represented for their business experience, life with HIV, relatives, overall health, and tentative plans if they were to receive the loans. Most of these stories revealed troubling trends. Fifteen of the interviewees were female, and their experiences with HIV had many similarities. Many of them had decided to get tested after their husbands, like Lucy’s, died of a mysterious illness. Many of the husbands were truck drivers going from Chogoria to Nairobi, Kenya’s capital. Some were workers in other major cities. What did these men have in common? Bringing HIV to their rural communities and, most tragically, to their homes.

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What major challenges he thought people with HIV in Kenya faced. I expected his answer to be discrimination, lack of support, or HIV-related fears. His answer, however, was nutrition.

I paused for a second and tried to understand the significance of his statement. Although millions of people around the world still cannot access HIV antiretroviral (ARV) medication, Kenya receives PEPFAR aid to purchase ARVs for citizens in the later stages of HIV. Thus, thanks to PEPFAR, people have great access to treatment. Now the problem is getting the right, balanced nutrition to supplement medications and boost their immune systems.

As I tried to make sense of what such a broad term as nutrition implicates, some images quickly came to mind. I thought of the starch-rich and protein-deficient meals my home-stay family enjoyed eating, although, I noticed, in unbalanced proportions. I remembered visiting a small orphanage where the meal the HIV-positive children were having consisted of boiled bananas, potatoes, and scattered beans. I had quickly dismissed the colorless dishes as I marveled at cabinets full of antiretroviral drugs and the affable nurse who administered the children’s drug intake. Although nutrition had not been in my immediate radar of factors burdening people living with HIV, it definitely became one by the end of my trip.

Another interviewee, Rose Kagendo, 28, also startled me with a comment. As we went over the usual questions of “do you use mosquito nets” and “have you ever had malaria,” Rose giggled in, perhaps somewhat mocking, disbelief. She explained that it was not a matter of whether people get malaria, but a matter of when they do. Most, if not all, of our interviewees and the people in their households had had malaria at some point, with episodes of recurrent malaria at least once a year. I quickly remembered Lucy and the extra burden her children’s episodes of recurrent malaria represented for her already-hectic days. I also reflected on the health of my home-stay family members. Mama Mary, my Kenyan host mother, suffered from high fevers for a couple of days and she quickly knew it was malaria. Without complaining,
she headed to the hospital to buy medications for the disease. Her grandson, Bryan, also contracted the illness it during her short stay. Indeed, Rose’s comment helped me realize how habituated people were to malaria. They knew the symptoms and they knew what to do. They knew how to incorporate it into their daily lives, and did not gasp at the news of someone else getting malaria.

It was I, the mzungu, who kept thinking about malaria as some foreign disease even in Eastern Africa where it is endemic. I acknowledged malaria as a tangible disease that could affect me at any time. After all, I took my daily prophylaxis religiously and panicked with every mosquito bite, thinking that that one bite surely had to carry malaria. Nevertheless, I still had not grasped the magnitude of this disease for people who actually lived in a malaria-prevalent area and for whom constant prophylaxis would be impossible and toxic. Malaria was clearly not a problem affecting just people with HIV/AIDS. It affected my home-stay family, my neighbors, and thousands more. Thus, although I went to Chogoria thinking I would learn more about aspects of the HIV epidemic, actually living there and talking to HIV-positive people showed me that AIDS is not the only concern on their minds. After all, developing AIDS symptoms is not as fast as experiencing malaria fevers. And buying ARVs is not as common as buying malaria medications.

Looking back, I realize that I was perhaps too narrowly focused on HIV. I was more concerned about the change in the community’s perception of HIV and the interviewees’ CD4-cell count than about other factors that could affect the change in the community’s perception of HIV and the epidemic. Going to Kenya to do “HIV/AIDS work” certainly implicated more than just looking at HIV; I learned not to see the AIDS epidemic in isolation but as a conglomeration of multiple issues, including nutrition and malaria. From my high school years of research on HIV and discrimination to my Stanford interest in Mother-to-Child HIV Transmission, I had read multiple articles linking all of these aspects and more. However, it was not until I saw the situation first hand—in my home-stay family, in the people I interviewed, and around Chogoria—that the inextricable relationships between HIV, nutrition, and malaria began to make sense. I could not “go to Africa” and do only “HIV work” while ignoring the problem of nutrition and the fact that thousands do die of malaria each day. It was necessary to view the interviewees and their health holistically in order to better understand the HIV epidemic in relation to their lives.

Laura Huaman, class of 2011, plans to major in Human Biology and minor in French. Born and raised in Lima, Peru, she has always been interested in medicine and international health. She enjoys volunteering at Arbor Free Clinic and working with Stanford’s Public Health Initiative. An AIDS and Human Rights activist, Laura loves Latin American literature, traveling, Peruvian food, and Spanish, French, and Italian music.

Major Health Issues: Kenya

HIV/AIDS: HIV/AIDS is a major health problem in Kenya, with an adult HIV prevalence rate as high as 8.5% in 2008, according to UNAIDS. Girls and young women are twice as likely as men their age to contract HIV. The most vulnerable groups include AIDS orphans, pregnant women, and rural populations.

WHO: http://www.who.int/hiv/HIVCP KEN.pdf

Malaria: Malaria, a protozoan infection transmitted from human to human by mosquitoes, is increasing the death toll in Kenya. Treated bed nets and malaria drug treatment are the best tools to combat the disease. National malaria strategies and aid from the Global Fund have increased the number of distributed bed nets and treatment available in Kenya.

Sources: WHO: http://www.afro.who.int/malaria/country-profile/ kenya.pdf

Tuberculosis: According to USAID, Kenya ranks tenth among the world’s twenty two countries with a high tuberculosis burden. In 2006, Kenya had more than 200,000 new TB cases. Efforts to provide TB treatment have had great success, although drug resistant tuberculosis is a growing problem.

I hoped that the summer’s experience would help me to understand previously distant healthcare challenges. I did not plan to become attached to the hospital and the people that it serves, but life does not always go as one plans. The relationships I developed in Malawi motivated me to return for nine weeks last summer and again this past winter break.

During my first visit to St. Gabriel’s, I witnessed how much the hospital appreciates scarce resources, relying on the goodwill of charities and international agencies to manage the overflow of patients at its doors. St. Gabriel’s also depends on 600 volunteers within the community to provide primary care and health counseling.

St. Gabriel’s Hospital serves 250,000 Malawians spread over a catchment area 100 miles in radius. The majority of its patients are subsistence farmers, living on under $1 a day. The catchment area has an HIV prevalence rate of 15%, combined with widespread malnutrition, diarrhea, Multi-Drug-Resistant Tuberculosis (MDR TB), Pneumocystis pneumonia, and other opportunistic infections. Three medical officers work for St. Gabriel’s, creating a physician-to-patient ratio of 1:83,000.

The summer after my sophomore year at Stanford, I spent four weeks at St. Gabriel’s, working with the hospital’s mobile HIV testing unit. As a Human Biology major with a focus on international health and bioethics,

by Josh Nesbit

A group of community health workers (CHWs) in text-messaging training

in their respective villages. Many of the volunteers are HIV-positive and were recruited through the hospital’s antiretroviral therapy (ART) program. When I asked Benedict Mgabe, one of the ART monitors, why he started volunteering, he replied, “I began when I saw my relatives and friends suffering from HIV and AIDS. I took it very personally; I knew I must get involved in curbing this epidemic.”

During my first summer at the hospital, I met only one Community Health Worker (CHW) – Dickson Mtanga, from Msampha village. Dickson frequently visited the hospital, mostly escorting patients from his village. Wandering through the hospital wards, he always had a newspaper-covered notebook in hand. When I asked Dickson what was inside, he opened the notebook, revealing beautiful, handwritten adherence charts for the 20 patients he was tracking. Dickson explained to me that every week he walked 20 miles to see each patient. He then walked 25 miles to the hospital so that a member of the hospital staff could examine the adherence charts and verify that Dickson was fulfilling his volunteer duties.

Talking with Dickson opened my eyes to the often-insurmountable obstacle that distance presents to patients seeking care at St. Gabriel’s. While more privileged patients ride bicycles or oxcarts, many people must walk up to 100 miles to get to the hospital. The same distance isolates CHWs in the field. Many volunteers felt restricted to their communities and disconnected from the centralized medical resources at the hospital – their potential role in delivering healthcare stifled by disjunction. There had to be a solution to the distance problem, a simple and sustainable way to bridge that gap.

Late in my sophomore year, a friend introduced me to Ken Banks, who was on campus developing a text-messaging platform called FrontlineSMS. Running on a laptop connected to a GSM modem or cell phone, the program serves as a central short message system (SMS) hub, coordinating mass communication. FrontlineSMS is the perfect fit for a rural healthcare network – it is free, easy to use, does not require an internet connection, and allows users to shape its functionality. Funded by a Haas Summer Fellowship and the Donald A. Strauss Scholarship, I returned to St. Gabriel’s with a donated laptop, one modem, 100 recycled cell phones, and a copy of FrontlineSMS.

Many people must walk up to 100 miles to get to the hospital. The same distance isolates CHWs in the field.
understood the purpose of the phone, less than one in ten had ever used one. On a large poster sheet, I printed step one of operational training: “Open the phone!” Once every volunteer learned how to text their name and village, they signed out and traveled back to their communities. I informed the Department of Surveys to print a map of the catchment area, and I plotted the locations of the disseminated phones.

As a result of the SMS network, CHWs can text the hospital staff when immediate care is needed. Each time the hospital laptop receives a text, a nurse with a bag of drugs jumps on a motorcycle and rides immediately to the patient's home. Each day that I was in Malawi, we responded to five or six requests for medical attention. According to Dickson, who served as one of the ten

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If they are helped and assisted, I feel so much better.”

--Dickson Mtanga

CHWs in the pilot group, “When I have a problem with my patient, I just send a message to the hospital at once. If they are helped and assisted, I feel so much better!”

The hospital is now able to track patients in their catchment areas. According to Alex Ngalande, a home-based care nurse, “Each and every department is clearly marked with the hospital’s logo. Further, the hospital services, FrontlineSMS solidifies the CHWs’ role as legitimate healthcare representatives in their villages. According to the program’s participants, patients and their communities have noticed the phones, each one clearly marked with the hospital’s logo. Further, the network illuminates the volunteers’ work, and realizes their potential as links in the health care system.

Malawians are said to spend roughly 10 percent of their earnings on health. For example, for TB patients who are not coming for their appointments, we use FrontlineSMS to text volunteers close to the patient’s village. It’s easy to get feedback from the community. CHWs also regularly update the hospital staff with information on patient status, including patient deaths. These messages have allowed the hospital to remain connected to patients’ and families’ waking hours at funerals. The statistic may reflect the IT revolution’s ability to create more informed citizens.”

Josh Nesbit is a senior in the Program in Human Biology, with a focus on International Health and Bioethics. Josh’s honors research focuses on pediatric HIV treatment access in rural Malawi. Josh is a goodkeeper on the Stanford soccer team, as well as an RA.

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