“The combination of medicine, public health research and the cultural experience, so far, has further confirmed my decision to pursue a career in medicine and public health. Everyday I am grateful to have this amazing opportunity to not only gain skills in global public health research, but also to learn about the wonderful culture and people in Chile. Even though it has already taken a piece of my heart, I am eager and excited to continue learning and exploring with the rest of my time here.” - Ngan (May) Do, Harvard MIRT 2015 Chile

“If in ten years I do not remember the full definition of public health, I will remember that it is a community effort. Many thanks to Harvard T. H. Chan School of Public Health for the opportunity to experience the rigor of public health. It has been a challenging experience; however, it remains the highlight of my undergraduate study.” - Idris Ayantoye, Harvard MIRT 2015 Ethiopia

“All in all, this unparalleled learning experience has been a journey of self-discovery, personal growth and the development of a keen awareness to the universal challenges that face us, the human race. This has in turn triggered in me a call to service and the desire to contribute to eliminating health disparities worldwide.” - Gifty Addae, Harvard MIRT 2015 New Zealand

“There’s a Spanish saying, ‘dime con quien andas, y te diré quien eres’—tell me who you walk with, and I will tell you who you are. Being exposed to this helps me think more critically about the study findings I will present later on, but I know that I will carry their stories with me for the rest of my life.” - Anne Wells, Harvard MIRT 2015 Peru
Ijala’s Mid-Trip Reflection

Ijala Wilson
Undergraduate, SUNY Albany
MIRT Site: Ethiopia

The few nights before departing to Ethiopia I became very anxious, nervous and excited. I spent hours surfing the internet trying to read about other people’s experiences while studying abroad. I had no idea of what it was like to live in another country. I have traveled out of the United States only once on a vacation to Jamaica. I didn’t get to experience the real culture of Jamaica, as I once planned to if I ever had the chance to travel abroad. The very last night before departing on that 13 hour straight flight to Ethiopia was a night filled with many emotions.

Upon arriving at Bole International airport on June 19, everything became so surreal. I couldn’t believe that I was actually in the continent of Africa and that Ethiopia was going to be my home for the next two months. I would have never imagined that this day or opportunity would ever come. When I found out that I would be traveling to Addis Ababa, Ethiopia, my great aunt informed me that my great grandfather started a school in Addis called the American School in 1955. It was so amazing to find out this information.

I hope to one day visit the school while I am here in Addis and have some information to give back to my family.

The first few days in Addis were a culture shock for me. There were many things that I had to get accustomed to, including the time difference, culture, language, food and most importantly the roaming animals. Before living in Ethiopia, I was afraid of animals. You couldn’t even get me to pet/feed an animal in the zoo. Living here in Ethiopia for some weeks, I have overcame my fears and I am now used to walking besides cows, donkeys, goats and dogs in the streets (although I tend to walk as far as possible).

Most days consists of waking up to be at the Addis Continental Institute of Public Health (ACIPH) and working on our research projects. The ACIPH staff was very welcoming of us. We have just finished the data analysis of our specific projects. We are now starting to draft the different sections of the manuscript. Having no experience using SPSS before, I found the data analysis to be quite a challenge. Thankfully Dr. Gelaye was there to help mentor, teach, and assist us with our projects during that intense data analysis week. My favorite things about work that I am going to miss are the two coffee breaks (10AM & 3PM). The coffee breaks are a way to socialize with others and to give your eyes rest from working in front of the computer so long.

We have also had the opportunity to travel to many different places in the city of Addis and in other parts of Ethiopia. Ethiopia is such a beautifully landscaped and historical country. I am really enjoying this experience of living and working in a different country. I have met many people while traveling in Ethiopia. I practice my few memorized lines of Amharic every time I meet someone new. Idris, Jo and I just arrived back in Addis Ababa from our visiting the northern historic sites of Ethiopia: Lalibela, Axum and Gondar. Each place has its own history, culture and attractions. It was fascinating to see the rock-hewn churches of Lalibela, the obelisks of Axum and the 17th century castles of Gondar.
The architecture of these historic monuments is phenomenal and beyond its time. I am still amazed at how the 11 churches of Lalibela were all built from one solid rock with simple tools top to bottom in 22 years. We also had the chance to visit two hospitals in the city of Addis; the Black Lion Hospital and the Hamlin Fistula hospital and previewed the AHOPE facility. I can’t wait for the week that we will spend at AHOPE. I have already grown a bond with some of the children there. They loved playing the jump rope game of 1,2,3 up the ladder I recently taught them. I have learned so much about many different things in such little time. I am extremely grateful for the MIRT program. These experiences given by the MIRT program have given me great memories that will last a lifetime.

It took quite some time to meet our driver, Mehari, who was waiting in the parking lot. Mehari wasn't the first Ethiopian we conversed with; however, he exemplified the warmth that is typical of many Ethiopians that we'll meet afterwards. Without wasting much time, I began to assimilate the surroundings - this place looks familiar, says an inner voice. I was born and grew up in Nigeria to the noises from public vehicles and their conductors, and to the clutter of pedestrians cautiously crossing major roads without help from a traffic light or traffic controller. I cherished the sight and the feelings that ensued. Mehari drove us to Kaldi’s café to experience our first of many frequent coffee breaks. Prior to arriving in Addis, I had little knowledge of the culture of Ethiopians. With organizations like African Union and United Nations Economic Commission for Africa in the city, I conceived that the city will be as modern as any major cities in Africa. I was right! In addition to that, I arrived to the construction of huge departmental stores, major roads and rails system. In every corner of the city, I have witnessed the initiation of new buildings and completion of many others. Every day, the ‘New Flower’ continues to blossom.
In the following weeks, we resumed work at the institute – mainly research paper critique and data analysis using SPSS. With Hannah as our supervisor and guide, we visited Black Lion Hospital and Hamlin Fistula Hospital. Black Lion Hospital is a teaching hospital of the College of Health Sciences at Addis Ababa University. It offers both emergency and outpatient services. At Black Lion Hospital, I had mixed feelings about the doctors and their patients – perhaps I had a preconceived notion of American hospital setting. Then, I saw young medical students and resident doctors taking rounds in different departments, and I realized how valuable their services will be to their patients in the future regardless of the condition in which they practice. We were told that many patients had walked several kilometers – either on foot or on donkeys - to reach the hospital. I remembered the similar conditions of general hospitals in my country, Nigeria, and how important my services will be to my patients. I have much respect for those young aspiring doctors and their tutors. The caretakers at Hamlin Fistula Hospital, specialty center for women with obstetric fistulas, were equally as incredible as those at Black Lion Hospital. Contrary to what I have observed in many hospital settings, the caretakers at the hospital provided the women or patients with jobs or with some formal training in arts/crafts so that they can have a source of livelihood once they leave the hospital. Since I arrived, I have enjoyed the rich history of the Ethiopian people. I visited the Institute of Ethiopian Studies and the National Museum of Ethiopia. I saw remains of Australopithecus afarensis or Lucy and other hominids. I have a deeper appreciation of the evolution of man and the inherent quest for propagation to new horizons – garnering along the way innovations and skills necessary for a global community.

So far, I have had an eclectic experience. Coffee breaks became a routine for us, but more importantly is the traditional food. I enjoyed eating Injera with lamb ‘tibs’ so much. Sometimes, I preferred to say ‘amesegna lo’ to saying thank you to the waiters after meal. Ethiopians are a very nice and welcoming people; from the janitors at the institute to strangers in the minibuses.

Somehow we were quickly recognized as ‘ferengis’ – foreigners – still we were not treated as different from the ‘habeshas’ – Ethiopians. On our cultural tour to the northern historical sites – Lalibela, Aksum (Axum), and Gondar, the chains of mountains and churches and the hospitality of the people was incredible. Our guide, Getaye, showed us around the eleven rock hewn churches of Lalibela constructed in the 4th century, and at night, we had a local wine called Tej. In Aksum, we visited the steles of ancient Axumite kings, and we saw the stone that bears the script of King Ezana’s victory in three languages: Greek, Sabean, and Ge’ez. Lastly, we went to the remains of the palace of queen of Sheba (Queen Mateda). In Gondar, we toured the castles dubbed Camelot of Africa by UNESCO, and we ended with a beauty view of the Simian Mountain – we saw a few simians.
Idris’ Mid-Trip Reflection cont.

The excursion to the north was a great time well spent learning about the history of Ethiopia, the traditions of the people – I have never seen another group which so much reverence for churches – and the boundless efforts of humans to live in communities even in most isolated of places without much concern for vague things like power acquisition and control of others that put human communities in industrialized world at loggerheads with one another. As an outsider from a developed country, I paid much attention to basic amenities like electricity, schools, health centers, etc. I observed the unequal distribution of resources or so I thought. A young boy who helped me to clean my muddy shoes preferred that I bought him a textbook as payment for his services. Coupled with their desire for knowledge, these young people also have awesome hospitality – a quality that I observed in Mehari on my first day in the country.

I am glad to have been appointed to train in Ethiopia. I am very appreciative of the contribution of Dr. Gelaye to making our project very understandable. He is always available to answer our questions and also instilled the meaning of public health and epidemiology in us. If in ten years I do not remember the full definition of public health, I will remember that it is a community effort. Many thanks to Harvard School of Public Health for the opportunity to experience the rigor of public health. It has been a challenging experience; however, it remains the highlight of my undergraduate study.
“I can’t believe I’m actually here” were the first words that came out my mouth as I stepped off the plane from the United States and touched Ethiopian soil. Prior to my travel, my original flight with the other MIRT fellows was cancelled, leaving me to travel alone to a country I’ve never been before. As soon as I got my luggage and proceeded to exit the airport, I was greeted by Mehari, my taxi driver who drove me to the place I would call home for the next two months.

As I rode in the taxi, my eyes couldn’t stop grazing over the beautiful land. There are so many mountains, construction, and animals in Addis Ababa. Just on my way home, I saw numerous dogs, cats, donkeys, sheep, goats, horses, and cows. Even though I’ve been to Kenya and South Africa before, I was beyond excited to live in a different country for the next two months.

During our first week of work at Addis Continental Institute of Public Health (ACIPH), we began introducing ourselves to the staff and familiarizing ourselves with the office atmosphere.

Hanna, our mentor, made sure we had everything we needed and gave us our own office to work in. Eventually we started composing the introductions to our research papers and waited for Dr. Gelaye to come to Ethiopia so that he may give us a better understanding of our projects. Dr. Gelaye was instrumental in getting us acquainted with SPSS and learning about biostatistics. He persistently helped us with our data sets and made sure we sufficiently understood our research projects.

Over the past four weeks our experience has been writing a research paper, visiting AHOPE, and touring the northern historic sites of Ethiopia. We haven’t started volunteering at AHOPE, but we’ve visited a couple times. The children at AHOPE are always happy to see us; when we visit, we usually play table foosball, volleyball, and soccer with them. I can’t wait to start volunteering at AHOPE; I have a feeling it’s going to be life changing.

So far the highlight of my experience is visiting the historic sites of Ethiopia. I never knew how much history and culture is embedded in Ethiopia. From visiting the unbelievable rock churches in Lalibela to taking a tour inside the enormous castles in Gonder, Ethiopia continues to amaze me. My advice for future MIRT fellows is to either bring a phone that has room for lots of pictures or bring another camera with you. In just five days I took almost 500 pictures of historic sites, beautiful landscapes, and breathtaking scenery. Ethiopia is a gorgeous country and I’m glad I chose this site to conduct my research.

For the next four weeks here, I plan to finalize my research paper, make more friends, tour new places, and continue to enjoy the beautiful culture and warm hospitality of Ethiopia. Undoubtedly, being in Ethiopia has been the most life-changing, eye-opening experience in my life. I am forever grateful for the MIRT program, as it’s given me the opportunity of a lifetime; I’ve learn some much about myself and the rich culture of Ethiopia—things I would’ve have never discovered if I was just a normal tourist.
Wayne Lawrence  
Graduate, Georgia Southern University  
MIRT Site: New Zealand

Exploring Sydney, sleeping in the rainforest, scuba diving in the Great Barrier Reef and camping out in the outback are experiences that I will never forget. Australia has such a diverse culture and unique history on every corner that choosing what to do next was the hardest part of my journey. I recall my first night in Sydney walking up to the roof of my hostel and looking out to see an iconic building that I have only previously observed by postcards and pictures from friends who have traveled to Australia. It was at this point in time observing the Sydney Opera House light up at night that made me say to myself “Wow I’m in Australia.”

Surprisingly enough, Sydney was just the beginning of my journey and the start to an array of experiences that I will never forget. From Sydney we traveled to Queensland, where I had the opportunity to interact with scholars to learn about the environmental impact human interaction and urbanization has had on Australia’s ecosystem and the effects of urbanization on indigenous health.

Traveling throughout Australia, I knew I was going to learn a lot about global health and non-communicable diseases, but I had no idea the professional skills I would gain along the way. Each day we were lectured on different aspects of global health, and following the lectures we wrote an essay and developed arguments for debates on different global health topics. We also had the opportunity to conduct a research project comparing physical activity among urban and rural communities. The project allowed us to work in groups to develop a survey, interview participants, perform data analysis on our collected data and present our findings. When we were first informed about the project, I was initially unsure how we would complete this in time, but due to the training and skills developed along the way, we were more than prepared to present our findings at the end of the trip.

An aspect of the trip that had the greatest impact on me and was related to my research interest was examining health inequities among the indigenous population. Having the opportunity to travel throughout Queensland interacting with various indigenous communities was an experience that I never thought I would have had. Prior to this trip, I read about the inequalities the indigenous population have faced, but having the opportunity to sit down and listen to each person’s personal story had the greatest impacted on me. I remember asking myself throughout each interaction, “How could these inequalities continue to persist in Australia.” I am truly fortunate to have had these opportunities and am confident that I will continue to pursue my passion for global health and racial health inequities.

“Education is the most powerful weapon which you can use to change the world.” — Nelson Mandela
Gifty Addae
Undergraduate, UMASS Boston
MIRT Site: New Zealand

My MIRT experience thus far has been amazing, eye opening and humbling in equal measure. My journey began with a 30 hour flight to New Zealand where I settled right in with my wonderful Kiwi host family and soon, it felt more like a homecoming although I had never been to New Zealand prior to this. Within the first few days, I got to see the stunningly beautiful landscape that defines New Zealand, managed to befriend some friendly locals, “adopted” a wonderful neighborhood dog named Buddy, and even got invited to a Maori cookout. However, four days after arriving in New Zealand and just as I was settling in, it was time to pack my bags and head on out to Australia.

Our visit to Australia was meant to stress the importance of maintaining the natural environment and highlight healthcare disparities especially for native Aborigine people who tend to have poorer health outcomes than other populations in Australia. I was very excited about this leg of the trip since visiting Australia, hugging a koala, snorkeling and scuba diving in the Great Barrier Reef had always been on my bucket list. But more importantly, I was thrilled about this experience because of my keen interest in global health.

Our program was structured to allow us to experience as much of Australia as possible, thus we never spent more than 4 days in a single location and moved from urban areas to the coast, the Great Barrier Reef, the Daintree rainforest, the Outback and the Tablelands. Although it was a surreal experience to visit all the iconic sites including the Opera House and the Harbour Bridge, the best experiences in Sydney was when we got a to learn about Aborigine history and modern challenges facing their community (which bore striking similarities to challenges facing both Native American and African American communities). We also visited Kirketon Road Center Clinic, a heath center that is striving to eliminate barriers to healthcare for marginalized communities through the concept of harm reduction. I will always remember this leg of the trip as when I became intrinsically aware of the challenges and complexities involved of delivering healthcare to diverse populations.

The next several legs of our trip allowed us to visit two Aborigine communities of Yarrabah and the Apunapima. Here, we learned about the Aborigine perspective of health, which is holistic in that it includes not just the physical but also the mental, social and familial wellbeing of an individual. We began to understand the true impact of poor socio-economic status on health outcomes, and how this could last for several generations. As depressing as this was, it was encouraging to see that these communities had chosen to take control of healthcare delivery and tailor it to the needs of their people. More importantly, their stellar outcomes showed that their methods work and they are reducing health disparities in their communities. I soon began to understand that the delivery of healthcare to all people is indeed possible if we are will to tailor it to the needs of the target populations. It also affirms my believe that we can learn strategies that eliminate health disparities from all corners of the globe.

Another aspect of our trip that resonated with me was when we learned about how the destruction of the natural environment affects our health.
I got the opportunity of a lifetime to snorkel and scuba-dive in the Great Barrier Reef while learning about how climate change was threatening the very existence of this natural wonder. A trip to the Daintree rainforest also showed the interconnectedness of the reef, mangroves and the rainforest and how the destruction of one leads to the destruction of the others. Next, we visited the Outback where we camped outside and learned to survive in an environment with limited resources. Another leg of our trip involved living and working on a farm in the Tablelands of Australia. This afforded me the opportunity to interact with Australian farmers and learn how they live and how hard they work. I have gained a new appreciation for where my food comes from. **This part of the trip was a soul-searching experience for me because it made me question my responsibility as a global citizen in helping to fix health disparities and the environment.**

Thus far, I have hugged a koala, fed a kangaroo, petted a wallaby, seen a platypus and the endangered casowary bird in the wild, seen a taipan (one of the world’s deadliest snakes), the natural wonders that are the Great Barrier Reef and the Daintree Rainforest, slept under the stars in the Outback, tried and failed miserably to understand rugby and cricket and even learn some Aussie slang along the way.

Now that we are back in New Zealand, I cannot wait to experience the people and culture while applying what I have learned to my research project. **All in all, this unparalleled learning experienced has been a journey of self-discovery, personal growth and the development of a keen awareness to the universal challenges that face us, the human race. This has in turn triggered in me a call to service and the desire to contribute to eliminating health disparities worldwide.**
Beemnet Neway
Undergraduate, Georgetown U
MIRT Site: New Zealand

The last three weeks of my MIRT experience has been spent on a study abroad program with students from Massey University and the University of Georgia looking at the link between human health and environmental sustainability. The past three years of my undergraduate education, I have tried to build an awareness to the driving factors behind health disparities. However, in my pursuit, I failed to acknowledge the impact of environmental issues, particularly climate change as a critical factor for inequalities in health. Spending time in Australia has showed me the importance of understanding environmental issues in order to effectively address disparities in health.

The indigenous Australian model of health incorporates a broader sense of wellbeing by looking at the health of the physical, mental, emotional, spiritual components and one’s connection to land. The tie to land is summed up by the Aboriginal English word “country.”

In our interactions with the indigenous communities, it was interesting to see how each indigenous person would introduce themselves to us by distinguishing not only what tribes they belonged but exactly what land their families came from. This relationship to country for indigenous Australians is so unique that they often talk about country as if it were a person. Unfortunately, the systemic oppression of indigenous people and their land by the Australian government has historically disrupted the culture and health of these indigenous communities. When compared to the health of non-indigenous Australians, indigenous health ranks poorly across the whole lifespan. Lower birthweights, higher perinatal mortality, suicides, and higher rates of non-communicable diseases contribute to a 20 year lower life expectancy. It was even more frustrating to learn that the effects of climate change are expected to further exacerbate the health conditions of these communities. Environmentalists predict that rising temperatures in the Northern Territory will increase the likelihood of communicable diseases such as asthma, diarrhea, and malaria. Indigenous Australians, many of whom are scattered across northern Australia are among those who are predicted to have a lower adaptive capacity to adapt to these climate change effects.

Our time in the Great Barrier Reef also showed me firsthand the connection between environmental issues and human sustainability. In the midst of our time snorkeling and scuba diving, we learned about how the reef’s biodiversity is a crucial aspect to maintaining the various ecosystem services, many of which are essential for protecting and sustaining human life. Part of the reef’s role involves maintaining a symbiotic relationship with mangrove forests, which play an important role in protecting coastlines from wave and tsunami damage. Unfortunately, the threat of climate change seeks to disrupt the harmonious relationship between these ecosystem services and human sustainability. Seeing this inseparable relationship between the environment and human health, I have a newfound energy to educate myself on climate change issues and develop a better connection with my natural environment.
I never realized how removed I was from my natural environment until this trip. I found myself constantly paranoid that one of the many deadly Australians snakes would introduce themselves to me, unannounced. However, despite my fears, I found that there is a natural sense of belonging when you spend time outdoors. Whether it was walking through the Daintree Rainforest under the starry night sky or canoeing on a silent dark night on Lake Eacham, I was able to find peace in the stillness of the dark and in the calls of the living creatures near me. These experiences were an important part of developing my awareness to my inherent connection to my natural environment. As I transition into the second portion of my trip in New Zealand, I am motivated to continue fostering the notion of global citizenship, which calls upon me to care not only for myself and others but also for the environment. In becoming a global citizen, I feel that my passion to reduce health disparities will be pursued in a more comprehensive manner.

MIRT New Zealand Fellows spent two weeks in Australia and had a chance to snorkel near the Great Barrier Reef (photo credit Gifty Addae)
In just one month I have fallen in love with Peru, and specifically its culture, cuisine, and people. Having spent most of my time in Lima, this city has shown me some of the most breath-taking landscapes I have ever witnessed. Located by the pacific coast, the view of the ocean, intertwined with the green mountains has become a perfect mixture for an evening run or walk with friends. However, what truly makes Lima special is the ambiance created by the locals. No matter the day or time, you will always find a group of individuals chatting by the benches in the parks, having churros with chocolate, or enjoying a casual drink. Lima is full of life, and its energy is truly contagious.

From the second we arrived it seems as if the days are not long enough to view all of its gems, from its historical landmarks and delicious cafes, to its colorful streets. Anne, Omar, and I have come to navigate our way around Miraflores and Barranco like true locals. By getting lost, on purpose, we have found some of the most delicious “menus” (lunch specials), interesting museums, and breath-taking views.

Without planning, I have had the opportunity of visiting a Mario Testino exhibit, La Tarumba (a Peruvian Circus), and Lima’s Cathedral Museum, to name a few. Spontaneity seems to drive our daily life which allows us to find something new, something delicious, or simply something beautiful each and every day.

Part of our interest to explore our surroundings comes from the encouragement and guidance from Dr. Sixto and his family. Dr. Sixto, his sister Elena, and her children are some of the most hospitable individuals I have ever met. From showing us their favorite restaurants, inviting us to play soccer, or taking weekend trips to the mountains, Dr. Sixto and his relatives are always open to making plans and helping us feel at home. Just this past weekend, out of pure spontaneity, Elena helped us book tickets to travel to Ica, a city located in the desert region of southern Peru. With her son Julius, Omar, Anne, and I traveled with just enough clothes for the weekend and arrived in Ica ready for an adventure. In two days we visited the beautiful Islas Ballestas, went to Huachanina (an oasis) and sand boarded down the most intimidating sand dunes. Not only was this weekend an amazing experience, but it showed me just another gorgeous side of Peru.

However while exploring the city is truly captivating, some of my most memorable experiences have come from my internship at El Hospital Dos de Mayo. By helping Dr. Sixto implement a screening survey for the new patients in obstetrics I have had the opportunity to apply my learnt skills in a real world setting. My favorite part of the internship is learning about the lives of these pregnant women, and instantly providing a form of aid. Through something as simple as a survey, we have been able to detect women dealing with violence, depression, and in need of vaccinations or medical exams. It is truly inspiring to be able to act instantly and guide these women towards the professional help they need. We have become part of a project that will have a long lasting impact in the future of these women and their babies.
Diana’s Mid-Trip Reflection cont.

Furthermore, by helping the research team at PROESA we are able to understand the intricate organization and planning behind the data we analyze, and have come to familiarize ourselves with the process behind these impacting studies. By obtaining a glimpse at the whole picture it has become easier to analyze our results, and write our manuscript.

Analyzing our data has been a remarkable experience as the patterns we observe brings to life the struggles of all the women interviewed. The significance of our paper becomes more apparent each day as I meet women who are facing the Public Health Issues we write about, and thus become further inspiration for our work. I am more motivated, inspired, and focused than I have ever been in order to try and alleviate the health disparities present in Lima. Overall, Peru has truly become my new home, and I could be more grateful for this amazing experience.

Omar’s Mid-Trip Reflection

I can’t believe it has already been a month since we arrived, or more so that I only have a few weeks left in Lima! Our first weekend here was a chance to settle into our apartment and meet some of our mentor’s friends and family before diving right into our projects. As part of our more consistent work, the three of us has an opportunity to observe at Hospital Nacional Dos de Mayo’s obstetrics triage, registering patients into a database and implementing a screening for newcomers. These short interviews are opportunities to flag possible cases of gestational diabetes, domestic violence, poor nutrition, etc., and refer them to the appropriate hospital services.

In the evenings, Diana and I have been collaborating on a piece concerning childhood abuse related PTSD during early pregnancy in Peruvian women. We’re using de-identified data from the PrOMIS study, which has been going on here for a couple of years now with the help of the PROESA office. We’ve also been able to visit the hospital where these interviews are collected and which also sees Peru’s highest number of births per day, the Instituto Nacional Materno Perinatal (INMP).
There, I’ve been able to hear some of the womens’ stories and see the campaigns that are created to promote sex education in the community. One of my MIRT highlights so far has been the chance to see just how much work is done to record an individual statistic—entities that are what even make studies like ours possible.

Our research mentor, Dr. Sixto Sanchez, has helped us escape Lima’s gray overcast (seriously, it can take days before you see the sun!) by taking us out on hikes throughout the city’s outskirts. He has also introduced us to staple Peruvian foods like the chicha morada, cuy, and some of the best ceviche I’ve had in my life. A perk of working with Sixto is that not only do you get him as a gateway into Peru’s culture, but you also get a multi-generational network along with him—his family. I’m not sure if I would have ever found out about the greatness that is the peña had Sixto’s niece, Helen, not invited us to the birthday party she was throwing in one. At some point that night, I was reminded of a Peruvian version of Sabado Gigante, just with a lot more dancing and no prize car at the end.

We’ve also used this past month to get acquainted with Lima, do some adventuring of our own, and immerse ourselves in different aspects of Peruvian culture. From the metropolitano bus line to the tiny crowded microbuses, I’ve been able to witness the improvised intricacy behind Lima’s transportation system first hand. A tourist would usually only stay in Lima for a couple of days before heading off to other parts of the country, but being somewhere for an extended period of time can provide some indispensable experiences. It gives you time to visit the smaller shops and try out all of your neighborhood restaurants’ different menu deals: $3-ish for an appetizer, dish, and dessert. Our apartment is in a relatively well-off area called Miraflores, but a commute of just under 40 minutes to La Victoria will take you through a completely different socioeconomic side of Lima. Just as this sort of inner-city disparity exists here, there’s no denying that a similar dichotomy exists in cities around the world and even back home.

This is my first time in a Latin American country other than the Dominican Republic, so many things have been new to me including the mighty football craze. Being here has also been an opportunity to reflect on Hispanic identity in Spanish speaking countries versus in the states and more specifically in NYC. Figures of the cast of El Chavo del Ocho in Lima’s Barranco district remind me of seeing my uncle Julian watch the show religiously while growing up. Differences in country specific expressions and word usages between my Dominican Spanish, Diana’s Colombian Spanish, and the Spanish of our friends here have been conversation starters that always leave us in a fit of laughter. In my encounters I’ve slowly confirmed that we may differ in terms of where we’ve lived but not necessarily in the types of lives we’ve led. This can make a place like Peru an easier one to find familiarity and comfort in while abroad.

It’s also always interesting to see what constitutes foreign culture and how it manifests and incorporates itself into the host society. Surprisingly, it seems as if the most popular western music you’ll find here are 80s rock/pop hits to the tune of Girls Just Want To Have Fun. You can easily find immigrants from neighboring countries but there are also those who’ve travelled across the world to start new lives here. Chifa is commonly recognized as part of Peruvian cuisine and has evolved as Chinese immigrants accommodated their flavors to those they found here over a century ago. I’ve also participated in events at the Asociación Perúano Japonés and been able to collect interviews and research notes for my senior thesis on Nikkei identity in Latin America. Peruvians are diverse on multiple fronts and I’m looking forward to learning even more about this as I travel to other parts of the country.

Just this past weekend, we took a trip down to a city called Ica where I was able to see my first desert. It was awesome seeing a much calmer side of Peru that reminded me of visiting my grandmother in the Dominican countryside. Returning to Lima afterwards came with that odd feeling I get always get whenever I return to New York from a more rural Amherst.
As these last few weeks wind down, I’m looking forward to the trips we have planned for Cusco, Machu Picchu and the central jungle. Hopefully these weeks will also include learning how to cook more meals for myself, visiting some more photo exhibits, and maybe even a leap of faith parasailing off of El Malecón. If we have time, Diana, Anne, and I may also be doing a smaller study in Spanish using the data we’ve collected from the screenings at Dos de Mayo.

My experiences here have reaffirmed my commitment to Public Health research as an important mediator for health related fields. Interactions with those I’ve met at Dos de Mayo, INMP, PROESA, and through my project have all somehow turned out to be opportunities for cross-cultural exchange. Even in entering these spaces as a foreigner, there’s always been a sense of camaraderie and appreciation because of our shared interests. I’m excited to deepen my relationship with both those I’ve met and am yet to meet in Peru, as well as the greater international health community I’m becoming more a part of every day.

When I received my research topic on the first day of MIRT orientation, I was admittedly intimidated. The list read “Childhood Abuse and Suicide Ideation in Pregnant Peruvian Women”, and my name was unmistakably written right next to it. It wasn’t exactly the topic I was expecting. I have always had the image of epidemiology research focusing on communicable and chronic disease. As a germ nerd, I had my heart set on researching tuberculosis or yellow fever or even anemia—anything but this. Childhood abuse is a heavy topic itself, but the implication that it could have a profound quantifiable impact such as suicide ideation later on in life really concerned me. But as per usual, I was up for a challenge, and this one seemed to take me far enough out of my comfort zone to guarantee some personal growth. And so far, I have not been left disappointed.

In my time working in the Dos de Mayo Hospital, shadowing at the Instituto Nacional Materno Perinatal (INMP) and the PrOMIS research office, I have had the incredible privilege of experiencing the many sides of the research that I have been sent here to help accomplish.

“Pack a pillow and blanket and see as much of the world as you can. You will not regret it.”
- Jhumpa Lahiri
Anne’s Mid-Trip Reflection cont.

Meeting the women who contribute to the study cohort and the institutions in Lima gives a face to the numbers that make our figures and tables; which is an experience that I am sure not many researchers nor doctors get to experience. Epidemiology books present an objective study, but the practice is multidimensional. We are working with people, their histories, their defects, their lives. These women, whether they have suffered abuse or from suicide ideation, neither or both, are so much more than the data we are working with. It is this realization that pushes me to get up earlier, work harder and deliver the best product for publication.

There’s a Spanish saying, “dime con quien andas, y te diré quien eres”—tell me who you walk with, and I will tell you who you are. Being exposed to this helps me think more critically about the study findings I will present later on, but I know that I will carry their stories with me for the rest of my life. Walking alongside the very populations we study places us in the nexus of academia and humanity, where life can procure explanation with infinite more questions. I don’t know, maybe I’m getting too poetic now, but this is all to say that every day I am here, I realize that there is so much more to this work than appears on the surface, and I am ever more grateful for the chance to discover this.

It hasn’t been all hard work. We are looking forward to rewarding trips to Machu Picchu in the Sacred Valley and a tour of La Selva (the jungles in La Merced!). We also just got back from a spontaneous weekend trip to Ica, which was a beautiful time—islands, lagoons, sand dunes, witches and karaoke bars all in about a 24 hour period. It’s times like these that remind me of the Peru I fell in love with when I travelled here before, but in a new way, with new people, new memories and great times all around.

I hope to spend the rest of my time here in Peru understanding the more intricate parts of the studies completed here, and especially potential avenues for policy changes and interventions that can be put in place to curb the violence. But I am also looking forward to enjoying the next few weeks and taking advantage of the beauty that this country has to offer. Til then... Un abrazo y saludos de Lima!

Samantha’s Mid-Trip Reflection

Welcomed by views of the timeless and rugged Andes Mountains, my first glimpse of Chile was breathtaking. I arrived in Santiago with various endeavors: to gain an experience in public health research, to broaden my knowledge of Latino/a culture and to apply my Spanish speaking skills in a clinical and research-based setting. Most importantly, however, I aimed to ensure that my daily interactions and engagement in research are in the best interests of the local community and ultimately benefit underrepresented Latinos and Latinas. With four weeks nearly complete, I am happy to reflect on how my involvement as a student researcher and observer on hospital rounds supports my commitment to these long-term goals.

Prior to my arrival, I believed that my Mexican heritage, family visits to Mexico and fluency in Spanish would be similar to life in Santiago. I also believed that my semester of studying chemistry and French in Paris and exposure to biochemistry research at the Pasteur Institute would prepare me for this project’s written report and my adjustment to Chile. However, these few weeks have shown me that Santiago is geographically, culturally, and linguistically unique. I was surprised to realize that I had difficulty understanding my host mother’s Chilean accent and was amazed by the city’s feel of modernity and antiquity.
Many communes have their own unique architecture. Compared to the modern skyscrapers in Las Condes, the Plaza de Armas dates back to the 16th century and features the city’s first post office, historic federal building and metropolitan cathedral. Santiago is more than just Chile’s capital and main economic center; it is arguably one of the most modernized cities in South America. It is home to Chile’s most advanced hospitals, colonial-era monuments, expansive parks, and major international centers. Santiago is also not far from Valparaíso, a small seaport city and UNESCO world heritage site. I have loved using my free time to explore Santiago, spend time with my host family and visit the Nobel prize-winning poet Pablo Neruda’s home in Valparaíso. I am excited for our future excursion to San Pedro de Atacama, home of the driest desert in the world!

During the week, I use SPSS to analyze previously collected data and examine the association of abuse during childhood and migraine in pregnant Peruvian women. I am grateful for Dr. Gelaye for his tutorials on SPSS and help with troubleshooting. We have completed our data analysis and are working towards finishing results and discussion sections of the written report.

I also shadow Dr. Vélez in the Rehabilitation and Plastic and Reconstructive Surgery departments at Hospital del Trabajador, a hospital that is paid by the employers of workers with occupational illnesses or injuries. Due to a work-related injury rate of 35% during the 1960s, this law was passed in 1968 to protect workers. This hospital is the main referral center in Chile and is supported by the Chilean Safety Association (ACHS) and Chilean law 16.744. Most of Dr. Vélez’s patients suffer from chronic pain and many visit for pain medication and prosthetics. In observing how Dr. Vélez’s patients receive attention from dieticians, occupational therapists, physical therapists and psychologists in addition to regular check-ups and prescriptions, I am inspired by this hospital’s holistic approach to providing health care because I believe that it contributes to preventative medicine in the workforce.

I am intrigued by how closely nurses and physicians in Rehabilitation Medicine, Plastic Surgery, Neuro-surgery, Traumatology and Physical and Occupational Therapy work collectively to create treatment plans for their patients. Here, I see how a patient’s path to a sustainable recovery requires teamwork from various disciplines. I have thoroughly enjoyed shadowing Dr. Vélez in Rehabilitation Medicine, learning about physical therapy and attending rounds in reconstructive plastic surgery. Aside from this, I have dedicated time to translating consent forms and project write-up proposals for Dr. Vélez’s future study on vitamin D levels in Chilean patients with traumatic spinal cord injury. As a future interviewer, I have received ethics training for IRB approval on human subjects research and am excited to work with Chilean students on this new project.

I look forward to finalizing my written report, participating in Dr. Vélez’s study as an interviewer and deepening my relationships with the physicians, therapists and staff at Hospital del Trabajador. I am grateful to Drs. Gelaye, Vélez, and Williams for allowing me this unique opportunity to explore public health and cultural diversity. Without a doubt, I am also grateful for May, my MIRT fellow and for the welcoming and supportive individuals I have met and befriended in Santiago.
Today marks exactly a month since I have arrived to Santiago, Chile. Time seems to fly by when I am constantly learning and absorbing everything this country has to offer. Soon after our arrival, Samantha and I quickly adjusted to the culture and local life here in Santiago. We are living with a host mom in a nice neighborhood right outside of the center of the city. Our host mom, Josefina, is very caring, and she makes sure that our stay is as comfortable as possible.

During the week, we would catch the bus and the metro to get to work. The commute is longer than what I’m used to, but I could never get tired of the breathtaking view of the Andes that I get to enjoy everyday going to and from work. We work at Hospital del Trabajador (Worker’s Hospital), a hospital that provides care to workers who have been injured while working a labor-based job. At the hospital, we spend our time shadowing and working on our research project. On a typical day at work, Samantha and I take turns shadowing our mentor, Dr. Velez.

We have had the opportunity to see patients and/or do rounds with the doctors in the Rehabilitation and Plastic and Reconstructive Surgery Department.
I have especially enjoyed observing the teamwork and the positive work environment at this hospital. When we are not shadowing, we analyze data and work on our research paper. The aim of our project is to analyze the relationship between childhood abuse and migraine in pregnant women. The most difficult part was becoming familiar with SPSS, but it was also the most rewarding part because the results gave us a clearer view of the association that exists between these variables.

The people in Chile are very friendly and welcoming, which has tremendously enhanced the quality of my time in this country. On the weekends, I have been exploring Santiago and near by cities. Last weekend, I went to Valparaiso and Viña del Mar. Valparaiso was a beautiful and colorful city, covered in intricate and powerful street art pieces. The most memorable part of visiting Valparaiso was touring one of the three homes of Pablo Neruda, a famous Chilean poet, diplomat, and politician. On our last day, we visited a beach in Viña where we were able to enjoy the warm sun and the amazing view of the ocean. However, my favorite memory thus far in Chile was when I had the opportunity to witness all of Santiago coming together as one to celebrate their Copa America championship against Argentina. The atmosphere and the energy I felt that night during the post-game celebration at Plaza Italia were indescribable and unique. It was a rare opportunity that allowed me to experience Chilean culture in the most authentic form. I felt honored to have been a part of the country’s celebration.

The combination of medicine, public health research and the cultural experience, so far, has further confirmed my decision to pursue a career in medicine and public health. **Everyday I am grateful to have this amazing opportunity to not only gain skills in global public health research, but also to learn about the wonderful culture and people in Chile. Even though it has already taken a piece of my heart, I am eager and excited to continue learning and exploring with the rest of my time here.**

“No kind action ever stops with itself. One kind action leads to another. Good example is followed. A single act of kindness throws out roots in all directions, and the roots spring up and make new trees. The greatest work that kindness does to others is that it makes them kind themselves.” - Amelia Earhart
Every year our MIRT fellows and faculty work on diverse research projects to address the needs of the communities of each site. In the Science Corner we provide synopses of study findings from selected sites. In this issue, we present studies from MIRT 2014. Please visit the MIRT Program website to read the complete list of abstracts.

**Background:** Monitoring central hemodynamic responses to an orthostatic challenge may provide important insight into autonomic nervous system function. Oscillometric pulse wave analysis devices have recently emerged, presenting clinically viable options for investigating central hemodynamic properties. The purpose of the current study was to determine whether oscillometric pulse wave analysis can be used to reliably (between-day) assess central blood pressure and central pressure augmentation (augmentation index) responses to a 5 min orthostatic challenge (modified tilt-table).

**Methods:** Twenty healthy adults (26.4 y (SD 5.2), 55% F, 24.7 kg/m² (SD 3.8)) were tested on 3 different mornings in the fasted state, separated by a maximum of 7 days. Central hemodynamic variables were assessed on the left arm using an oscillometric device.

**Results:** Repeated measures analysis of variance indicated a significant main effect of the modified tilt table for all central hemodynamic variables (P<0.001). In response to the tilt, central diastolic pressure increased by 4.5 mmHg (CI: 2.6, 6.4), central systolic blood pressure increased by 2.3 (CI: 4.4, 0.16) mmHg, and augmentation index decreased by an absolute - 5.3%, (CI: -2.7, -7.9%). The intra-class correlation coefficient values for central diastolic pressure (0.83e0.86), central systolic blood pressure (0.80 - 0.87) and AIx (0.79-0.82) were above the 0.75 criterion in both the supine and tilted positions, indicating excellent between-day reliability.

**Conclusion:** Central hemodynamic responses to an orthostatic challenge can be assessed with acceptable between-day reliability using oscillometric pulse wave analysis. (Stoner et al. Atherosclerosis (2015) 241)

**Background:** Antepartum depression is one of the leading causes of maternal morbidity and mortality in the prenatal period. There is accumulating evidence for the role of brain-derived neurotrophic factor (BDNF) in the pathophysiology of depression. The present study examines the extent to which maternal early pregnancy serum BDNF levels are associated with antepartum depression.

**Methods:** A total of 968 women were recruited and interviewed in early pregnancy. Antepartum depression prevalence and symptom severity were assessed using the Patient Health Questionnaire-9 (PHQ-9) scale. Maternal serum BDNF levels were measured using a competitive enzyme-linked immunosorbent assay (ELISA). Logistic regression procedures were performed to estimate odds ratios (OR) and 95% confidence intervals (95% CI) adjusted for confounders.

**Results:** Maternal early pregnancy serum BDNF levels were significantly lower in women with antepartum depression compared to women without depression (mean ± standard deviation [SD]: 20.78 ± 5.97 vs. 21.85 ± 6.42 ng/ml, p = 0.024). Lower BDNF levels were associated with increased odds of maternal antepartum depression. After adjusting for confounding, women whose serum BDNF levels were in the lowest three quartiles (<17.32 ng/ml) had 1.61-fold increased odds (OR = 1.61, 95% CI: 1.13, 2.30) of antepartum depression as compared with women whose BDNF levels were in the highest quartile (>25.31 ng/ml). There was no evidence of an association of BDNF levels with depression symptom severity.

**Conclusions:** Lower maternal serum BDNF levels in early pregnancy are associated with antepartum depression. These findings may point toward new therapeutic opportunities and BDNF should be assessed as a potential biomarker for risk prediction and monitoring response to treatment for antepartum depression. (Fung et al. BMC Psychiatry (2015) 15:43)
Alvin Tran, Ranjodh (RJ) Dhami, and Wint Wai were MIRT Fellows in 2010 in Addis Ababa, Ethiopia. RJ and Wint collaborated on a project titled “Comparison of Measures of Adiposity in Identifying Cardiovascular Disease Risk among East African Adults” (Obesity 2012) and Alvin worked on a project titled “Prevalence of Metabolic Syndrome among Working Adults in Ethiopia” (Int J Hypertens. 2011). These projects were instrumental in highlighting the growing problem of non-communicable diseases in sub-Saharan Africa. Now, five years since their MIRT fellowship, how are they doing?

RJ’s Alumni Update

Since having the privilege of being a MIRT fellow in the summer of 2010, life has continued to be interesting. The year after our time in Ethiopia I completed my degree in Bioengineering at the University of Washington. After working in an emergency department for one year, I started medical school at the Pennsylvania State University. Drawn there in part by the bioengineering research being done, during medical school I have worked on cardiopulmonary bypass apparatuses, novel bio-materials for orthopedics applications, as well as orthopedic outcomes research. As of this summer I am in the beginning of my final year, and I will be applying for residency in Radiology with the intent to go into International Radiology. Despite not having much of an opportunity to further my passion for global health, I hope to join a residency program where this is valued.

Aside from my academic pursuits, I continue to be a lover of fitness, food, and travel. Recently I had the chance to spend a month in Boston where I was able to reunite with Bizu Gelaye and Alvin Tran. Those meetings were tremendous fun and showed just how great the bonds formed during the MIRT fellowship can be.

Wint’s Alumni Update

Wint Wai was an undergraduate student at the University of Washington (UW) when she participated in the MIRT Program Ethiopia site in 2010.

Wint is currently a 4th year medical student at the University of Wisconsin School of Medicine and Public Health. Her interest in community health led her to join the TRIUMPH (Training in Urban Medicine and Public Health) program, which trains students in urban underserved locations to better understand how to reduce health disparities. She is working on an 18-month project in Milwaukee that focuses on improving nutrition among families of elementary school aged children through school-based, family-oriented social events. These include lessons on cooking, nutrition, and increasing awareness of local healthy and affordable food options. She is planning to start residency in Family Medicine next year. Her eventual goal is to continue working with underserved populations, especially refugee and immigrant families, as a primary care physician in a community health center.
Alvin’s Alumni Update

Since completing the MIRT Fellowship in Ethiopia, Alvin has earned a master of public health from Emory University, one of the leading public health institutions in the nation. At Emory, Alvin became a certified health education specialist and published several research manuscripts, including a study with the U.S. Centers for Disease Control and Prevention on infection control policies at assisted living facilities.

His most exciting experience post-MIRT, however, was as a health care reporter for Kaiser Health News (KHN) in Washington, D.C. At KHN, Alvin wrote articles about the new federal health law, the Affordable Care Act, for the Washington Post, PBS NewsHour, and the Fiscal Times. He also reported for various NPR stations and broadcasted live on public radio.

Currently, Alvin is a third-year doctor of science student in the Departments of Nutrition and Social and Behavioral Sciences at the Harvard T.H. Chan School of Public Health. His research interests include eating disorders, obesity, and dietary supplement use among vulnerable populations, such as sexual minorities. He is closely working alongside his mentor, Dr. Bryn Austin, to develop a strategic lobbying effort to catalyze the Massachusetts state government to take action in addressing the sale of harmful dietary supplements in retail stores. The widespread abuse of these products by youth and adults and the dangers and deceptive advertising of loosely regulated dietary supplements are well-documented in the public health literature, yet pharmacies, supermarkets, and other retailers continue sell them without much restriction.
Alumni Updates
Do you have an update?
We want to highlight your professional accomplishments and personal milestones.
Help us keep you informed and let us know how you’re doing!
Please contact Lauren Friedman via email (hsphmirt@gmail.com).
We would love to hear from you!

MIRT/MHIRT is a national program designed to encourage students to pursue careers in biomedical and behavioral research. This program provides support for undergraduates and graduate students to receive research training in an international setting. MIRT is funded by the National Institute on Minority Health and Health Disparities (NIMHD). The Harvard T. H. Chan School of Public Health MIRT (formerly the University of Washington MIRT) Program was developed in collaboration with Dillard University, Xavier University, and Western Washington University. The program focuses on population-based health research in developing countries and builds on established linkages with academic institutions in Zimbabwe, Vietnam, Thailand, Republic of Georgia, Peru, New Zealand, Mexico, Malaysia, Ethiopia, Chile and Australia.

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