When Professor Balbach first mentioned One Health in Intro to Community Health, I had no idea what she was talking about. When she explained how One Health is the idea that clinical, veterinary, and environmental health are inextricably linked, it felt like the concept was intuitive. But why had I not heard of it before?

One Health is an emerging, and essential, framework to be applied in many fields. Some of the most pressing problems we face in health today are at the interface of human, animal, and environmental health. For example, due to climate change, there will be more areas suitable for mosquitoes, and with certain mosquitoes comes the spread of malaria: a disease that caused approximately 627,000 deaths in 2012 (WHO, 2013). Chronic issues can also be addressed with the One Health framework. Professor Allen gives the example with how “both humans and domestic animals are affected by the built environment such that obesity has become epidemic. In addition to the built environment, our reliance on corn products for animal and human foods may also play a role.” By recognizing the intimate relationship between the branches of One Health, we can understand how shifts in one area impact the others and how we can implement effective and sustainable interventions.

Tufts University has all of the elements needed to be a leader in One Health research and curriculum. In a recent brainstorming meeting, representatives from Tufts Medical School, Veterinary School, Department of Civil Engineering and more expressed interest in collaboration to establish One Health at Tufts. Though faculty members are engaged and involved, it is students who drive the One Health agenda. A small group of undergraduate students approached both President Monaco and the Provost Harris to ask for support in establishing an educational curriculum at Tufts on One Health that would promote cross-disciplinary research.

Tufts Food Rescue: Delivering Nutritious Food In Somerville

Do you ever wonder what happens to the food at bakeries, grocery stores, farmers markets, or restaurants when it doesn’t get sold or eaten? According to Lovin’ Spoonfuls, a Boston-based food rescue organization, 40% of the food produced in the United States goes to waste, which equates to 1,400 calories per person per day. Tufts Food Rescue (TFR), a recently revived Leonard Carmichael Society (LCS) club, is determined to reduce this unnecessary waste while also improving health by delivering nutritious food to low-income families in the Somerville area.

The program began in earnest four years ago when Dr. Kevin Irwin, a community health professor, partnered his research methods class with the Somerville Homeless Coalition to address food security in Somerville. The group developed the Somerville Food Security Coalition, and raised almost $30,000 over two years to buy a walk-in freezer for the Somerville Homeless Coalition (SHC) after learning that the reason there was no fresh produce at the food pantry was due to lack of storage capacity. According to Mark Allston-Follansbee, executive director of the SHC, “Since we got the freezer, we have gone from zero fresh produce for the people who use the food pantry to 95% getting fresh produce.”

Two years after getting the freezer, the program is still going strong. Six times each week, TFR volunteers use the LCS vans to pick up food from local farmers’ markets and grocery stores such as Whole Foods and Trader Joe’s that would otherwise have been thrown away. They then deliver it to Project SOUP, a subsidiary of the SHC. Tufts Food Rescue’s partnership with
Placement here resulted in being offered a part-time research assistant position real-world aspects of community-based participatory research. Furthermore, my projects was putting together a poster for a National Institute of Environmental for. I also wrote for and edited the CAFEH study website. One of my favorite awareness of competing forces and interests in Chinatown that I was looking and the Boston Chinatown Neighborhood Center, which gave me the increased Chinatown Resident Association, the Asian Community Development Corporation, several meetings of community groups like the Chinese Progressive Association, the Chinatown to be cognizant of the risks that air pollution poses to residents, it was internship: I wanted to leave the experience with a better understanding of the forces at play in Chinatown that impacted the health of its residents. I was assigned to work on a newly funded initiative, Improving the Health of Near Highway Communities, which was under the umbrella of the larger Community Assessment of Freeway Exposure and Health (CAFEH) study. Because he had so much experience supervising community health interns, Dr. Bruggie was able to design an interdisciplinary experience for me that was appropriate for the community health program’s goals. Over the course of the summer, I assisted in a large variety of ways. As Dr. Bruggie’s initiative sought to influence building practices in Chinatown to be cognizant of the risks that air pollution poses to residents, it was important to keep track of developments in the area. I had the opportunity to attend several meetings of community groups like the Chinese Progressive Association, the Chinatown Resident Association, the Asian Community Development Corporation, and the Boston Chinatown Neighborhood Center, which gave me the increased awareness of competing forces and interests in Chinatown that I was looking for. I also wrote for and edited the CAFEH study website. One of my favorite projects was putting together a poster for a National Institute of Environmental Health Sciences conference focused on issues of environmental justice. My internship experience was invaluable because it exposed me to many real-world aspects of community-based participatory research. Furthermore, my placement here resulted in being offered a part-time research assistant position with the Tufts Community Research Center, also headed by Dr. Bruggie. For more information about the CAFEH study, please visit https://sites.tufts.edu/cafeh/.

I spent the fall of my junior year abroad in Hangzhou, China. When I returned to campus and began to search for my community health summer internship, I was very adamant about finding a placement in Boston’s Chinatown. After appealing to professors, teaching assistants, and other community health majors for advice, I found that many of them recommended Dr. Doug Bruggie, a professor in Department of Public Health and Community Medicine on the Boston campus. Having hosted many interns on his projects in the past, when I contacted him he was very happy to meet with me and discuss opportunities. At our first meeting, I was very straightforward about my goals for the internship: I wanted to leave the experience with a better understanding of the myriad of forces at play in Chinatown that impacted the health of its residents. I was assigned to work on a newly funded initiative, Improving the Health of Near Highway Communities, which was under the umbrella of the larger Community Assessment of Freeway Exposure and Health (CAFEH) study. Because he had so much experience supervising community health interns, Dr. Bruggie was able to design an interdisciplinary experience for me that was appropriate for the community health program’s goals. Over the course of the summer, I assisted in a large variety of ways. As Dr. Bruggie’s initiative sought to influence building practices in Chinatown to be cognizant of the risks that air pollution poses to residents, it was important to keep track of developments in the area. I had the opportunity to attend several meetings of community groups like the Chinese Progressive Association, the Chinatown Resident Association, the Asian Community Development Corporation, and the Boston Chinatown Neighborhood Center, which gave me the increased awareness of competing forces and interests in Chinatown that I was looking for. I also wrote for and edited the CAFEH study website. One of my favorite projects was putting together a poster for a National Institute of Environmental Health Sciences conference focused on issues of environmental justice. My internship experience was invaluable because it exposed me to many real-world aspects of community-based participatory research. Furthermore, my placement here resulted in being offered a part-time research assistant position with the Tufts Community Research Center, also headed by Dr. Bruggie. For more information about the CAFEH study, please visit https://sites.tufts.edu/cafeh/.

In my current position at the Massachusetts Coalition for Occupational Safety and Health (MassCOSH) seeks to do just that. TLAW is a youth-led organization which develops teens into Peer Leaders who teach other young workers about their health and safety rights at work. A current TLAW goal is to better reach out to, educate, and serve young immigrant and undocumented workers. Currently, no comprehensive body of research exists regarding occupational safety of young, immigrant workers specifically. However, studies comparing on-the-job safety of immigrant versus American-born workers, of unauthorized versus authorized workers, of Latino versus White workers, and of young versus adult workers have shown the population in question carries identities making them more likely to suffer work-related injury, illness, and death. Furthermore, this is a group far less likely to receive health and safety training at work—a disparity that TLAW is well positioned to work towards changing.

In order to better reach and serve this population, TLAW wanted to learn what health and safety issues this group primarily faces. After working with the TLAW Peer Leaders all summer and laying the groundwork for this type of research project, I decided to continue with it as a senior capstone project. The main goal of the research was to gather narratives of young immigrants’ health and safety experiences in the workplace. However, an equally important part of the project was the process of training the Peer Leaders in human subjects research and supporting them through conducting interviews and analyzing the results. The project faced many obstacles along the way. The IRB process was tedious and long. Participant recruitment, even with the offer of compensation, was extremely difficult. Coordinating logistics of getting two Peer Leaders, a participant, and myself into a room at the same time was frustrating. Nonetheless, over the course of about three months the Peer Leaders got themselves CITH Human Subjects Research certified, helped me develop an interview guide, learned all consent procedures, conducted four excellent interviews, and discussed the themes and trends common throughout the participants’ stories.

The age range of our sample was 19-22, and the age at which our participants came to the United States ranged from 6 to 17. Our four participants came to the U.S. from Brazil, the Dominican Republic, Haiti, and Vietnam. Two participants had come to the U.S. undocumented, both of whom had applied for and received Deferred Action for Childhood Arrivals status (DACA). One came here with a green card and is currently a Legal Permanent Resident (LPR) in order to provide for not targeting individuals here in the U.S. on a temporary basis, one of our participants is here on a F1 student visa and has a work permit.

Based on the interviews, a few themes that stood out to our research team:

- **Isolation at work.** All of our participants worked in jobs where they were alone and expressed either feeling lonely or feeling as if they were isolated from their coworkers or the general working environment.
- **Workplace violence.** Two of our participants expressed concern about the potential of being robbed, mugged, or otherwise verbally or physically harassed at work. This was exacerbated by the fact that one of them—the delivery driver—worked alone and both of them had not been trained to deal with a violent situation.
- **Importance of coworker and supervisor relationships.** All of our participants expressed that their relationships—or lack thereof—with their coworkers and bosses heavily influenced their level of enjoyment and sense of belonging in a workplace. One participant experienced depression and physical manifestations of stress because of a negative relationship with a boss. Two participants expressed feeling supported at their jobs because their coworkers and bosses were of similar immigrant backgrounds. One participant felt unsatisfied with a position at which she did not know any of her coworkers and had no regular interaction with her boss.
- **Effects of immigration status.** Authorization to work in the U.S. determined a lot regarding job satisfaction, pay, stress levels, and to some extent health and safety exposures. Both of the two undocumented participants interviewed were young enough upon entering the U.S. that they qualified for and received Deferred Action for Childhood Arrivals (DACA) in 2012. They each expressed immense differences in their lives before and after receiving this pseudo-status. Before DACA, one participant held several jobs which she disliked for reasons including but not limited to being paid below minimum wage, having wages stolen, and having stressful and unhealthy relationships with supervisors.

Continued on page 8
Who is Timmy?

Alejandra Garcia-Pletsch

As you think back to the warmer days of September, you may remember the colorfully chalked words that graced our sidewalks as clubs and sports teams welcomed new members to join. Among the sea of invitations, the question “Who is Timmy?” invited students to learn more about the Tufts chapter of Timmy Global Health.

Timmy Global Health is an Indiana-based nonprofit that works to expand access to healthcare and provide students and volunteers the opportunity to engage directly in global development. Timmy Global Health works alongside local and international partners to tackle global health challenges. Through a series of medical brigades, Timmy aims to empower volunteers to help fight health disparities among vulnerable populations.

Tufts has proudly been home to one of the organization’s most active chapters for several years, with students investing much of their free time into the organization. Every year, the Tufts chapter sends a group of students on a medical brigade to Xela, Guatemala, a city 7,500 feet in the mountains with cornfields lining its roads and the Santa Maria volcano towering above it. Students have the opportunity to work with medical professionals, assisting with teeth translations for medical professionals, assisting with teeth challenges. Students have the opportunity to see a wide array of indigenous Mayan background. Students see a wide array of public health interventions can be in practice.” The passion of these students and the values and lessons learned throughout their work continue as soon as the group return to campus. On April 3rd, the annual Battle of the Bands competition hosted by Tufts Concert Board will also serve as an advocacy event for Timmy. The group will speak about their experiences during brief intermissions throughout the show as well as showcase a collection of photos taken on brigades over the years. To learn more about who Tufts Timmy is or to get involved with the organization, please email tufts-timmy@tufts.edu.

Timmy Global Health allows students the opportunity to apply what they have learned in their coursework to a real-life setting. Freshman, Nick Nasser, commented on the impact his coursework has on preparing for his first medical brigade to Guatemala. “Community Health classes have given me a better understanding of the nature of health disparities and the factors that can contribute to unequal care globally,” said Nasser. Senior, Emma Rosenbluth, reflected upon how her experiences as a Community Health major enabled her to think critically about the factors influencing the health in the Guatemalan communities they visited. “Learning about the social determinants of health in my community health classes helped me better understand the challenges faced by the communities we served,” stated Rosenbluth. Likewise, students reflect on the benefit of learning outside of the classroom setting as well. Victoria Powell, Senior, said, “experiencing Timmy’s methods for implementing healthcare has definitely given me a new perspective on what research leads to and how effective public health interventions can be in practice.” The passion of these students and the values and lessons learned throughout their experience, truly exemplifies the mission of Timmy.

The work of the Tufts Timmy chapter does not end upon return from the trip. Throughout fundraising, advocacy, and service, the work continues as soon as the group return to campus. On April 3rd, the annual Battle of the Bands competition hosted by Tufts Concert Board will also serve as an advocacy event for Timmy. The group will speak about their experiences during brief intermissions throughout the show as well as showcase a collection of photos taken on brigades over the years. To learn more about who Tufts Timmy is or to get involved with the organization, please email tufts-timmy@tufts.edu.

As a popular second major at Tufts, it is not too surprising that the Community Health Program’s mission ties in with one of the pillars of the Tufts community: active citizenship. A new club this year, 180 Degrees Consulting, is combining this active citizenship with the Community Health values. 180 Degrees Consulting is “the world’s largest student consultancy.” Their mission is to help non-profits in their work “overcome the challenges they’re facing so they can have a greater social impact.”

180 Degrees Consulting started in 2007 at the University of Sydney. The founder, Nathaniel Ru, had spent much of his new time volunteering when he realized that “the effectiveness of funds is just as important as the level of funds and yet most non-profit organizations have no access to affordable consulting services.” Were worked together with his friends to create the first branch in Sydney, and since then the organization has established branches in 18 countries and has worked with organizations such as the Red Cross, Africap, and the Salvation Army. During a junior semester abroad, Tufts student AJ Scaramuzzi discovered 180 and got involved on the Sydney campus. After realizing what an exciting and powerful organization 180 is, AJ worked tirelessly to bring a branch to Tufts. Tufts now has one of the United States. In fact, the executive board received over 130 consultant applications this spring and worked to assemble teams of graduate and undergraduate students that could best serve the selected non-profits. Each of the five teams is consulting with either a non-profit organization working to reduce homelessness, the Perkins School for the Blind, the Leukemia and Lymphoma Society, the Play Ball! Foundation or New England Sustainable Farming. Bradley Friedman, a junior on the 180 executive board, explained the role 180 is hoping to play: “A gap exists between students who are passionate about addressing, and providing the actual solutions and services these causes need.”

One of the most exciting aspects of the Tufts 180 branch is that, “180 is something that Tufts students love – a combination of problem solving, social impact, active citizenship, and giving back to the global community,” explain Vice President Jen Gewart. Interestingly, it seems that 180 is also a perfect combination of interest for Community Health students. The Community Health Program works to both expose students to “analysis of the major health issues of today and the institutions that plan and deliver services,” and “the variety of social, psychological, environmental, and political factors that influence decision-making about health and health care.” Both the Community Health values and the Tufts active citizenship pillar truly tie together in 180’s mission to help nonprofits make the most effective social impact while providing the added bonus of incredible business experience. As Josh Youner, a senior on the executive board, explained, “180 is focused on helping nonprofits in the Greater Boston area augment their social impact through greater efficiency and better strategic planning.”

The Tufts 180 branch provides a unique opportunity for Community Health students. Jessica Muganza, a sophomore, team consultant and Community Health major, explained, “CH majors in particular could have an invaluable perspective since CH is such a multidisciplinary major.” 180 Degrees plans to continue accepting new applications as well as new non-profit clients each year. As Ben Berman, 180 co-president, described, 180 is also working on creating a Tufts Consulting Network with Alumni. The alumni will be serving as advisors to 180 teams and will become part of a network to help Tufts students secure jobs in the consulting field. For those interested, the executive board is offering a lecture series of consulting professionals throughout the semester that is open to all students. It will be very exciting to see the results of 180’s first semester on campus, and to see how CH majors continue to get involved in such a fulfilling and unique opportunity.

Footnotes
2 “About Community Health.” Tufts University, http://www.tufts.edu/about/community-health/about.

One Health

One Health, in many respects, is a combination of problem solving, social impact, active citizenship, and public health problems from a “One Health” perspective. I predict that One Health will become a guiding framework for public health practice in the future. It’s pretty simple. When we create some kind of balance in which diseases do not diminishes biodiversity, or threaten animal health, they will come back to haunt us in other ways.”

With this in mind, future work and interventions in human, environmental, and veterinary health will require collaboration across multiple disciplines. Tufts has a unique opportunity to be the leader in this field and students are encouraged to explore the opportunities developing at the university.

Improving Maternal Health Outcomes in Nepal

Greg Zhang, Ece Kocak, Emily Miller

Each year in countries around the world, tens of thousands of expectant mothers lose their lives. This situation poses a serious discussion on the prevailing maternal health across the economic development spectrum throughout the world (Mackay, 2006). To address this at Tufts, Globemed partnered with Nyaya Health to raise money toward alleviating financial burdens facing pregnant mothers in Achham, Nepal. This partnership brings to light the endemic structural problems which present barriers to mothers accessing antenatal care and health-facility based delivery. Complications throughout pregnancy can endanger the mothers’ and the child’s health and are often dependent on timely management and treatment. Regular antenatal visits, as well as institutional births with skilled attendants, are factors which helped lower the world maternal mortality rate by almost 50% over 20 years. The government of Nepal is working to implement a comprehensive strategy to improve maternal health outcomes. A committed and well-funded policy has resulted in an increased number of skilled health workers along with better access and improved quality of facilities for birth.

Nyaya Health, located in rural far western Nepal (Globemed at Tufts partner from 2010-2013) serves the population with free clinical care from Bayalpata Hospital. There, estimates of maternal mortality offered by delivery facilities is 800 deaths per 100,000 live births, a figure which is likely an underestimate due to limited data collection among mothers and births occurring outside an institutional setting (Schwarz, 2013). This could be due to poor transportation infrastructure and long distances: for most Achhamis, accessing clinical health care means walking, sometimes for hours, on poorly maintained roads across mountains, a journey even more difficult for pregnant women. Because pregnant mothers must rely on family and friends to travel, families who often feel that they do not have the resources to commit to an institutional delivery or regular antenatal care. (Nyaya 2013).

Awareness of available services also plays an important role in delivery of care. The government’s female community health volunteers (FCHVs), along with Nyaya’s Community Health Worker Leaders (CHWLs) have played an integral part of providing primary healthcare services and raising awareness in Achham. More Achhamis are utilizing institutional delivery or regular antenatal care. (Nyaya 2013).


Engel, J. (2013, J.) A paradigm shift for maternal health in nepal . The Overseas Development Institute


Globemed at Tufts will partner with PHASE Nepal, an organization looking to create a self-empowered and self-sustaining society addressing mental health, child health, family planning, education, nutrition, sanitation, and emergency management. PHASE stands for Practical Help Achieving Self Empowerment. This new partnership is also cause for retrospection. The three years of partnership with Nyaya have shown that despite efforts by the Nepali government and NGOs such as Nyaya and PHASE Nepal, maternal mortality remains high. There must be a constant push to design and implement a system to make sure all expectant mothers get the treatment that they deserve before, during, and after delivery. The path to achieving safe motherhood for all is arduous, but like most public health initiatives, it is worth taking. Nyaya Health, PHASE Nepal, and other organizations, in partnership with engaged citizens and students remain committed, no matter what challenges lie ahead.

References

Globemed at Tufts Food Rescue cont’d from page 1

Lucas Abowd
Hallie Abelman
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Maria Campbell
Bryn Clark
Kate Collins
Catherine Couglinh
Sarah Diaz
Alexandra Earle
Erica Feldman
Malina Filkins
Elayne Galloway
Alexandra Goldman
Erin Griffard
Weixuan He
Lauren Jayson
Keara Jones
Jacquelyn Kercheval
Stephanie Kerr
Elizabeth Keys
Jennifer Knick
Julia Kosowsky
Caitlyn Lahousse
Terence Lam
Jasmine Lee
Kathryn Li

The Somerville Homeless Coalition helps them stay attuned to community needs so that they can achieve their goal of eliminating food insecurity, reducing food waste, and promoting good nutrition.

According to Jeremy Gross, a recent Tufts graduate who sold his startup, they can easily post on the website and arrange a pick-up that same day.

“I love being a part of this program because the Somerville area has a lot of food waste and this is a concrete way to help people at a systemic level.” Jeremy said. “I also like that this is a local problem that we can fix while really interacting with the people at a systemic level.”

For many, it is difficult to commit to making the four recommended repeat antenatal visits. Nyaya’s clinical data (Nyaya 2013) suggest that the significant additional benefits to justify the cost of treatment. The Nepalese government offers individual incentives to mothers for antenatal visits (100 rupees per visit), while hospital or clinic deliveries are incentivized with individual incentives to mothers for antenatal visits (100 rupees recommended repeat antenatal visits. Nyaya’s clinical data (Nyaya 2013). These problems are often treated that same day outpatients coming in to Bayalpata come for a specific issue attended-by-skilled-health-personnel.

The other noted how happy he was to no longer be doing the cleaning and landscaping jobs which were his only options before DACA. They are each currently working at jobs which they enjoy and which pay well. Based on my understanding of the interviews and of the combined forces of various oppressions that working young immigrants face in this country, I would hypothesize that these general themes would hold true within a larger sample of young immigrant workers. However, my sample also carries undeniable limitations. Aside from being very small, those individuals who I was able to recruit to interview are likely among the most privileged of the qualifying population. For example, three of the four had attended at least some post-secondary education and all four are working legally at the current moment. My participants were those who saw my flyer and were bold enough to contact me in order to tell their story, something that many have good reason to be fearful of doing. They had time during the afternoon to be interviewed, which many others may not have. Although we offered to do interviews in Spanish, all of our participants spoke English—a factor that has also been shown to reduce risk of workplace injury.

After discussing the trends that stood out to us, I debriefed with the Peer Leaders about their experiences participating in the project as research assistants. One peer leader said that conducting interviews was overwhelming at first because she was nervous, but that once she started she really enjoyed talking to people about their experiences. They said—at least to me—that they enjoyed working on the project and that they wish they had been able to do more interviews. They also noted that they wish they had interviewed people with more traumatic experiences because they know that these people exist, but for some reason we could not find them.

For me, this project was stressful but rewarding. I was thrilled to be able to go through the process with the Peer Leaders and watch them stretch themselves to conduct interviews with strangers older than them and take themselves seriously while doing it. I hope that their experience as my research assistants will prove valuable to them in the future. I look forward to seeing future research on this topic, hopefully carried out by those who are situated within these communities and by those who can commit more time to this project. This endeavor and the hard-working young immigrants of the U.S. deserve both of these improvements.

Footnotes