The practicum experience is an integral part of the MPH curriculum. Public health students are provided with the opportunity to apply their classroom knowledge to real world settings through which they make a meaningful contribution to a public health organization.

Under the guidance of a community preceptor and faculty sponsor, students from all divisions gain a deeper understanding of public health practice, interact with professionals in the field, and expand their repertoire of professional skills.

This eighth-edition e-magazine showcases student practicum experiences throughout the Summer 2012 semester. (Prior semesters may be accessed through the Practicum e-Mag link, on the Office of Public Health Practice website.)
## Practicum Topics

Serving Size: 1 Practicum per Student  
Servings per e-Magazine: 53

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### Austin Regional Campus

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<td>TB Epidemiology</td>
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<td>Mapping Child Maltreatment</td>
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<td>Happy Kitchen</td>
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<td>Healthy Hospital Committee</td>
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<td>Youth Empowerment</td>
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<td>Rabies</td>
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<td>Maternal Global Health</td>
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### Brownsville Regional Campus

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<td>Needs Assessment</td>
<td>Stephanie Castellanos</td>
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### Dallas Regional Campus

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<td>Matthew Cvitanovich</td>
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<td>Health Fair</td>
<td>Samuel DeValdenebro</td>
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<td>Fetal &amp; Infant Mortality Review (FIMR)</td>
<td>Bethany Grubb</td>
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<td>Emergency Department Research</td>
<td>Amanda Lee</td>
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<td>Hepatitis B Prevention</td>
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<td>Colon Cancer Screening</td>
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<td>Veterinary Public Health</td>
<td>Jenny Russell</td>
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### El Paso Regional Campus

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### San Antonio Regional Campus

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<td>Dental Population Health Metrics</td>
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### STEER: South Texas Environmental Education & Research

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<td>Briana Dunkin</td>
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<td>Jonathan Trejo</td>
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<td>Border Health</td>
<td>Brett Wilkinson</td>
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Food System Level Evaluation

Evaluation of the Food System in Dove Springs

By: Alycia Boutte

My practicum experience was with the Sustainable Food Center and researchers at the Austin Regional Campus. The topic was evaluating the food system in Dove Springs, a community in southeast Austin. I gained valuable field experience by collecting baseline data on residents' access to fruit and vegetables (F&V), adults' consumption of F&V, and social norms surrounding F&V through door-to-door surveys. I also conducted a windshield tour to assess the built environment, which included documenting healthy food availability and facilities where residents could engage in physical activity. I will help conduct qualitative interviews with residents to assess the community's readiness, which will inform future programming in the neighborhood. The final products were the completion of the NEAT and CHLI assessments.

Public Health Significance

My practicum experience relates to the Public Health Essential Service of monitoring health status to identify community problems. The baseline data collection of resident's access to F&V will help to create an accurate picture of the community's needs, resources, and desires in regards to having a strong local food system. This information will assist the Sustainable Food Center in creating helpful programs and community engagement strategies that could help increase access to healthy foods, nutrition education, and cooking skills in the Dove Springs neighborhood. Through organic food gardening, relationships with area farmers, interactive cooking classes and nutrition education the Sustainable Food Center aims to increase access to locally grown food and empower children and adults to improve the long-term health of Central Texans and our environment.

Special Practicum Duties:

- Conducting door-to-door surveys with residents in the Dove Springs community
- Observing the nutrition and physical activity environment of the neighborhood
- Completing the NEAT and CHLI assessments to help evaluate the food system
- Qualitative interviews with community

Personal Lesson Learned:

One’s environment plays a critical role in the access to nutritious foods and physical activity opportunities, which ultimately affects one’s health and well-being.

Photo 1: Produce from a Hispanic grocery store
Photo courtesy of me
Asian American Health Initiative

For my practicum, I conducted secondary research and analysis on the Asian American population for the Austin-Travis County Health and Human Services Department (ATCHHSD). Additionally, I participated and volunteered at other ATCHHSD events and projects related to health disparities.

My work will contribute to the Asian American Health Initiative for Austin- Travis County, championed by the former Assistant Director of ATCHHSD.

I created a written report to inform ATCHHSD about the demographics, geography, and health issues concerning Asian Americans in the county. Ultimately, my findings and recommendations will assist the department in developing programs to address health burdens faced by Asian Americans.

Public Health Significance

My practicum experience is most directly related to the Essential Public Health Service of improving health disparities and health inequities. As stated in the Healthy People 2020 objectives, tackling health disparities among racial/ethnic groups is deftly needed in order to ensure equal health access, quality, and positive outcomes for all.

In addition, the Public Health Essential Service most closely related to my practicum is assessment. My work involved investigative research and analysis of data for a certain population in our community. Only by assessing the needs and health issues for the Asian population can we begin to prioritize, select and implement potential programs to address these concerns. The ATCHHSD has much power and vested interest to influence and create municipal policies and programs to address health disparities in our community.

More than half of all Vietnamese households in Travis County speak English less than “very well” according to the American Community Survey. This is a potentially significant barrier to receiving quality healthcare.

Asian American Health in Austin-Travis County

By: Peteria Chan

Advice for Future Students

• Pay attention in Epidemiology Class! I applied much of what I learned in that class in my research and analysis. GIS skills would also have been very helpful to my practicum.

Asian refugees, particularly from Burma and Bhutan, make up about 1/3 of the total clients served in Travis County. Burmese refugees, like the children pictured above, are at high risk for suicide.

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Special events/ duties during my practicum

• Collaborated with other researchers and community stakeholders with interests in Asian American health

• Volunteered with the mobile outreach van for the African American Quality of Life initiative (AAQOL)

Advice for Future Students

• Pay attention in Epidemiology Class! I applied much of what I learned in that class in my research and analysis. GIS skills would also have been very helpful to my practicum.

Asian refugees, particularly from Burma and Bhutan, make up about 1/3 of the total clients served in Travis County. Burmese refugees, like the children pictured above, are at high risk for suicide.
Wellness with WeViva

Practicum Highlights

- Saw first-hand what it takes to run a non-profit by working with the organization’s founder
- Interacted with diverse groups of people all over the city

Improving physical fitness and nutrition among low-income Austin women

By: Julie Cushing

WeViva provides free, on-site nutrition and fitness classes to low-income, minority women in Austin in order to reduce the burden of chronic disease and minimize health disparities. I gained experience in many aspects of program design, management and health education, including creation of partnerships, design of evaluation materials, data collection and analysis. I was also able to interact with clients and witness the wellness benefits they gained from our services, whether by sweating at a Zumba class or learning a healthy recipe. For my final product, I created a Program Guide for WeViva that covers practical details, lesson contents, materials, and evaluation results. Thus far the results show overwhelming satisfaction with the services and increases in healthy behaviors.

Public Health Significance

One Essential Service highlights the duty to "link people to needed personal health services." By providing free, on-site fitness and nutrition classes, WeViva gives clients access to services they may not otherwise have. Pre- and post-test comparison showed a 21.5 percentage point decrease in the number of participants that felt there were many obstacles to exercise. In pursuit of this service, I sought out instructors, created promotional materials, and searched and applied for grants to help fund the program.

Another Essential Service aims to “Inform, educate, and empower people about health issues.” WeViva does this by connecting clients with fitness and nutrition professionals to enhance knowledge of and access to exercise and healthy foods. Clients inform each stage, and they're encouraged to share information with their families and communities, spreading the chain of influence. I assisted by researching effective programs, creating evaluation materials, and helping with lessons.

Advice for Future Practicum Students

- Be willing to take chances trying new skills and don’t be afraid to ask for help when needed. It’s a learning experience!

Photo from Generalmagic.com

Photo from WeViva.com
Tuberculosis (TB) genotyping & Correctional Facilities TB Screening

Practicum projects included...

Designing a database using Epi Info 7 software that would streamline the identification of epidemiological links among cases of a particularly large and active Tuberculosis cluster in Texas.

Writing a series of training presentations geared toward correctional facility staff and health care workers, on topics of transmission, testing methods and procedures, screening and release policies and infection control.

Applying new technologies to track an ancient killer

By: Lindsay Dickey

This summer, I worked with the Tuberculosis services branch of the Infectious Disease department at the TX DSHS. I worked with two different areas, one was the genotype program, which utilizes laboratory-determined genotype information from each case of TB to identify chains of recent transmission. In this area, I helped consolidate demographic, genotype, and contact investigation information for cases of known clusters.

Another area I worked in was TB in correctional facilities. I updated facilities information and wrote training presentations for training correctional staff about TB.

Texas has the second highest incidence of TB in the US, behind California, in part due to high proportion of foreign-born residents, and binationalists, and its large correctional facility population.

Public Health Significance

My practicum experience really touched on several of the tenets of public health, including monitoring cases of tuberculosis in the state, and investigating the case links to known clusters and known cases. When more than an expected number of new cases were diagnosed in a particular region or facility, we worked with the local site to develop better TB prevention policies, or enforce existing Texas safety codes.

The TX state TB services department uses surveillance data from the surveillance team and analyzes it, and connects with the local and regional health departments to strengthen preventative measures, or to investigate ongoing clusters. This department also communicates extensively with the CDC, especially since Texas has such a large number of TB cases, and CDC experts help investigate large outbreaks.

Image of women awaiting arraignment in a holding cell
From: http://chronicle.uchicago.edu/051201/prison.shtml

Image of a 1930s public health poster
A Few Words of Wisdom…

Public Health Significance

During this practicum experience I got to observe how food safety is monitored in our community. In addition, I got to see how the existing food safety standards are enforced in Austin.

Since my experience involved both shadowing sanitarians and analyzing data, the Public Health Essential Service most related to my experience is monitoring.

The Austin/Travis County Health Department sanitarians consistently monitor food safety compliance in our community and enforce food safety regulations such as safe holding temperatures and sanitary practices. In addition, they educate food service workers in the community on safe food handling practices. My project analyzes the results of sanitation inspections with a goal of determining common violations in order to focus enforcement and education efforts to improve food safety in our community.

Cooler Detention

One of the ways that local sanitarians ensure proper temperatures is to detain non-functioning coolers until they are repaired. If was fortunate enough to see this process on a few occasions.

- All products in a detained cooler are temperature tested and either kept or disposed of to protect the public. A sanitarian’s communication skills are very important to explain this process to a restaurant owner!

A Few Words of Wisdom…

Policies and Red Tape can be Frustrating

- I did not realize how many activities would be forbidden during my practicum because I am not an official city employee. This caused me to have to change my research focus multiple times this summer. Make sure you have all the legalities worked out before you start!
Assisting State Implementation of the Affordable Care Act

State Reform Project Aids Communication Between States Implementing the ACA

By: Jeanie Donovan

As a health policy intern at the National Academy of State Health Policy (NASHP) I worked specifically on their State Reform project. State Reform is a web-based project that provides an online forum for state officials, advocates, and other stakeholders to communicate about health reform. At statereforum.org, users are able to share documents, ask/answer questions, and participate in webinars and briefings related to implementation of the ACA in their state.

As the project intern, I was responsible for researching and tracking the policy and process decisions made by various states regarding health care reform and their Insurance Exchanges. I also assisted in creating blog posts and posting relevant documents to the website.

Public Health Significance

My experience as an intern at NASHP involved several of the Public Health Essential Services. Specifically, I was working on:

- Mobilizing Community Partnerships
- Informing, Educating, Empowering
- Enforcing Laws

On the State Reform project team, we strive to build partnerships between state officials, federal agencies, and advocates involved in healthcare reform efforts. Through these relationships we are aiding the implementation of the ACA, which in turn will increase the overall health of our population. Through the sharing of information and assistance, the broad goals of the ACA, including increased focus on public health and prevention and increased access to affordable, comprehensive health insurance coverage will become a reality.

Although we are not specifically enforcing the federal law, we used clear data and research to give states the tools they needed move forward.

The Supreme Court Decision

- On June 28, 2012, just a few weeks into my practicum, the Supreme Court released its ruling on the constitutionality of the Affordable Care Act. Their ruling in favor of the law gave many states the assurance that they needed to continue their health reform efforts. The decision also fueled our work in helping them!

Pearl of Wisdom

- Be proactive in asking for new tasks or for clarification on given assignments. It never hurts to speak up if you’re unsure of what to do next!

In a 5-4 decision, the Supreme Court Justices largely upheld the major provisions of the ACA. Media and press coverage of the decision was unprecedented in Supreme Court history.

Photo courtesy of the New York Times.
Public Health Significance

The Public Health Essential Service that most closely relates to my practicum experience is linking people to needed personal health services and assuring the provision of health when otherwise unavailable. While helping establish the new Family Resource Center at Bumet Middle School, I researched food pantries and community health clinics that serve the North Austin area. When I present my assessment of the Parent Support Specialists’ portfolios, I will provide all of them with a list of the nutrition and physical activity resources that were utilized. By doing this, I hope that the Parent Support Specialists will be able to plan more nutrition and physical activity events for the next school year. The AISD Parent Support Office contributes to public health by linking parents to housing, employment, education, health and social services. The resources they provide help the families become safer and healthier so that their children can excel in school.

Parent Outreach in AISD

By: Antonia Galea

I worked on parent outreach and health education with the Austin ISD Parent Support Office. The office does not directly provide health services to the parents, but through their Family Resource Centers they provide a variety of resources including locations of emergency food pantries and community health clinics. The Parent Support Office also oversees the Parent Support Specialists, which are located at many AISD schools. One of the responsibilities of Parent Support Specialists is to coordinate health and wellness activities at their school, such as planning family fitness nights and providing nutrition education classes. I was responsible for compiling and assessing the nutrition and physical activity programs used by each Parent Support Specialist, and I will present my results to them during their orientation training in August.

Parent Outreach Activities and Parent Health Education in Austin ISD

Special events/ duties during your practicum

- Assisting at PTA meetings and Middle School Transition Nights
- Researching housing and health resources in North Austin for the new Family Resource Center at Bumet Middle School

Advice for Future Students

- Even if there is a language barrier between you and the community you’re working with, offer to help using your other strengths.
Supporting the DSHS HIV/STD Evaluation Team

By: Rebecca Hornbach

Throughout May and June 2012, I worked with an evaluation team at the DSHS HIV/STD program in Austin. I supported two main projects: (1) researched and wrote an issue brief on condom distribution, and (2) supported the initial phase of a community coordination study.

By attending the evaluation team's weekly meetings I learned how one “real-life”, successful group approaches the work. I also worked with a team member at the DSHS office where I gained exposure to the agency's objectives and procedures.

The team's approach to the work is very creative. Team members strive to empower DSHS leaders, staff, and community partners and use a variety of progressive methods to do so. I enjoyed learning from the talented members of the group and appreciated their interest in my personal and professional growth.

Practicum Highlights

- Being part of an innovative evaluation team
- Gaining valuable skills in SPSS, Endnote, and Visone.
- Writing an issue brief that will be distributed throughout the state of Texas

Public Health Significance

The DSHS HIV/STD Program provides all three core functions and all ten essential services of public health. Program staff (1) assesses HIV/STD diseases by collecting data from community partners, (2) develops disease-related policies through their work with national leaders and local stakeholders, and (3) provides assurance by constantly evaluating the processes that are in place. The state program's work is crucial to the delivery of a comprehensive and coordinated approach to HIV/STD control in our state.

As an intern, I worked with an evaluation team that supports the HIV/STD program leaders. The evaluation team mainly assists with the assurance core function, but the team also uses progressive teaching methods to empower program staff and community partners, which ultimately increases productivity.

Advice for Future Practicum Students

Do not underestimate how much you will truly enjoy your practicum experience! I wish that I had set aside more time during the summer for this great learning experience rather than completing the 180 hours in a condensed form.
Mapping Child Maltreatment in Travis County

By: Allison Byars

This summer I completed my practicum with the Trauma Services research team at the Dell Children’s Medical Center (DCMC) in Austin, Texas. I worked on the beginning stages of a project that will map child maltreatment (abuse and neglect) in Travis County. The project will map victims of child maltreatment who are less than 15 years old who were patients at the DCMC and or were identified by Child Protective Services from 2003 to 2012.

Public Health Significance

My practicum focused on many important issues in maternal and child health and families in general. Child physical abuse, neglect, and sexual abuse are problems that need to be better understood and prevented.

This project helps to prevent injuries and assure the quality and accessibility of health services. By identifying areas with higher rates of child maltreatment, social workers and public health officials can better serve the needs of those populations.

This project also fills the essential public health service of research for new insights and innovative solutions to health problems. It was also a project that mobilized community partnerships to identify and solve public health problems. In this project, the research team at DCMC is working with the Texas Department of State Health Services and a local nonprofit called Children’s Optimal Health.

The end product of the project, a series of maps that will identify rates of child maltreatment in Travis County, will be beneficial for all the parties involved. Areas with the greatest need and highest risk will be easily identified.

Mapping Child Maltreatment

I conducted a literature review of previous published studies that mapped child maltreatment or used ArcGIS, a mapping software, to map other social services. I also helped complete the Seton IRB request form that would allow the project to officially begin.

My practicum project was a journal club where I presented and critiqued two articles related to child maltreatment mapping and led a discussion over them. It was a great learning experience.

Maps are visually appealing and can help community organizations easily identify areas that need more resources. Graphic: Lux Port Group, LLC.

“Child abuse and neglect can be prevented or stopped through the efforts of schools, neighbors, families and the community.”
-Child Abuse Prevention Association

Highlights

- Literature review of public health studies using mapping technology.
- Journal club presentation critiquing two articles.

The majority of child maltreatment victims are infants. Photo: Thinkstock/Ryan McVay
Primary Care Needs in Migrant Populations

Cumulative Assessment of the Primary Care Needs of Migrant Populations, as found in Managua, Nicaragua

Krislynn Mueck

My practicum was to conduct a literature review assessing the primary care health needs of the migrant coffee bean harvesters in Managua, Nicaragua, based on current primary health care resources available in the city, gaps in care available, barriers to obtaining care, and health statistics for the population in general. My preceptor is currently in communication with health officials in Nicaragua and colleagues in USAID (United States Agency of International Development), the topic of which is a proposed primary care facility to meet the health needs of a population of migrant coffee bean harvesters in Managua, Nicaragua. This project is still in the planning stages, and much information remained to be gathered with respect to the specific primary care needs of the population. My final products are a summary of information gathered in the literature review as well as a questionnaire for use in the proposed clinic.

My findings suggest a large gap in equity of primary care between urban and rural populations, with migrant rural populations receiving the highest barriers to care and the lowest health indicators, particularly in maternal and pediatric health.

- In 24 countries where we've been heavily involved, maternal mortality declined by 40 to 65 percent.
- Eleven of the President’s Malaria Initiative focus countries have had reductions in childhood mortality rates, which ranged from 16 to 50 percent.
- In one year, USAID-supported programs provided 29 million infants and children with vitamin A supplementation in six countries."

Our hope is that, though the primary care facility is merely in the planning stages, that this background data on the population it intends to serve and questionnaire may be utilized in the service of an ongoing needs assessment and feedback tool with which to gauge the facilities progress in meeting healthcare needs. These including primary and preventative care for an underserved population, as well as patient education.

Public Health Significance

The significance that my practicum has for the field of public health is the possession of data with which to define and identify a population and identify health problems therein, as well as use this information to better educate and inform them of ways to both prevent and identify potential health hazards they may be at risk for.

My preceptor is involved in international medical work with USAID (United States Aid for International Development), who's mission statement and recent achievements read:

“Our long-term investments in maternal and neonatal health and voluntary family planning have been paying dividends, among them:

Practicum Highlights

- I very much enjoyed seeing the photographs of Managua and the work my preceptor was doing there.
- Being interested in international medicine, getting to learn about the needs of international populations was a pleasure for me.

Lessons Learned and Advice for Future Students

- Take the time to choose a practicum experience that you are truly interested in, and a preceptor who is devoted to that area of study. The time spent will pay off in something useful that you will enjoy working toward.
Assessing the feasibility of the Farm-to-Families project, an after-school farm stand to increase access to fresh produce

By: Cori Nemec

The Farm-to-Families (F2F) project aims to increase access to fresh produce by implementing a farm stand at local elementary schools in low-income communities where current availability of produce is minimal.

My practicum was with the pilot study of F2F. We implemented a farm stand at one low-income school once a week for six weeks. I was involved with working the farm stand, collecting data, and analyzing the financial feasibility and impact on fruit and vegetable intake. The farm stand was held on Fridays from 1:30-4:00pm in effort to appeal to parents picking up their children from school as well as to teachers who often came out to shop after school was dismissed.

The farm stand was popular among families and teachers. Preliminary data indicate that vegetable consumption increased among survey participants. Additionally, all survey participants wanted the farm stand to return in the fall.

**Practicum Highlights**

- Interacting with the families and seeing children excited about vegetables and the farm stand
- Putting over $1,000 worth of fresh, organic produce that otherwise would not have been available into the community

**Public Health Significance**

The F2F project implements several essential services of public health. First, the service of "Inform, Educate, Empower People" applies as we distributed educational nutrition materials at the farm stand. Second, the service of "Mobilize Community Partnerships" applies as we worked with various community organizations (schools, non-profits, and local business) to implement F2F. Third, "Evaluate Effectiveness, Accessibility and Quality Personal and Population-based Health Services" applies as we evaluated the effectiveness of bringing the farm stand to schools.

Obesity is a significant public health issue facing this country, especially among children with whom the rate of obesity has tripled since 1980 to nearly 17% of 2-19 year olds in the United States (CDC). Access to nutritious food is an important resource in combating obesity, and disparities in access exist based on socio-economic status and geographic location, among others. The F2F project aims to reduce the gap in access by providing farm fresh produce in areas where access is limited.

The F2F pilot project was funded through a grant from the Michael & Susan Dell Center for Healthy Living. This organization contributes to public health by conducting research and providing support for programs that promote healthy lifestyle choices for children and their families.

**Lessons Learned**

One thing that sticks out to me as a lesson learned is being open to and observant of potential areas of analysis that come up when you are in the actual intervention community that you may not have thought about during the preparation phase.

Johnson’s Backyard Garden, a local Austin farm, generously contributed the produce sold from the farm stand at a deep discount.

Photo courtesy www.jbgorganic.com
The Happy Kitchen/La Cocina Alegre (THK)

Practicum Highlights

- Created a questionnaire from scratch that will (hopefully) allow for robust data; held the latitude to decide how to implement the study so that it would be strong and feasible
- Coordinated phone interviewing and study duties among study team members and conducted interviews with past participants

Advice for Future Practicum Students

- If you want to feel prepared to get out into the real world of public health, I would definitely recommend that you find a practicum where you will get real experience. Though all the responsibility of planning and running a good study was a bit stressful, the experience afforded me many learning experiences that simple data entry, for example, could not have matched. Don’t be afraid to put yourself out there!

Cooking Up an Evaluation for THK

By: RACHEL PAULEY

Sustainable Food Center (SFC) coordinates several programs having to do with the local food system. For the first time, SFC decided to evaluate its cooking and nutrition education arm, The Happy Kitchen/La Cocina Alegre (THK), in order to assess the effect of the program, as well as its future direction. My responsibilities included creation of the questionnaire, database, and study design, as well as coordinating with my study team and conducting interviews. The study mainly focused on measuring maintenance of concepts learned in THK, which was assessed mainly in the form of a food frequency questionnaire and differentiated between pre-THK and the past week. My thesis will analyze the results of the study, which will then allow me to draw conclusions about the efficacy of the study and to share its implications for SFC and the field of public health.

Public Health Significance

My THK study was an evaluation of a health service (#9), as well as research (#10), given that it delved into how THK could better serve the population. The work of SFC, as the umbrella organization, is closely tied to the objectives of public health. Before it begins any program, SFC conducts community assessments (#2) in order to understand what problems still exist in areas of Austin and who is most affected. Once they moni-tor and diagnose these problems in relation to the local food environment, they create programs intended to give individuals the self-efficacy to make healthy food choices and utilize the resources available (#3). SFC also mo-bilizes its volunteers and community partners to become involved in legis-lation and programs that are tackling similar problems (#4 & #5). All staff members at SFC eat sustainably and attempt to persuade others regarding the health advantages of eating local-ly and organically (#6). Occasionally SFC will conduct evaluations of its programs in order to measure if the at-risk population is truly being reached and impacted (#9). Sometimes programs are expanded or changed to fit these needs (#10).

The logo for THK visually explains its purpose: to promote healthy cooking and eating for long-term dietary and behavioral changes.

Photo courtesy of Sustainable Food Center, 2011.
Patient Observations of Hand Hygiene

Are patient observations of healthcare worker hand hygiene valid?
By: DonnaLee Pollack, RN, BSN

Using patient observations is a new way to measure hand hygiene compliance of healthcare workers. However, the validity of patient observations has not been determined. My job was to create a patient survey form to measure hand hygiene compliance of healthcare workers for use in outpatient clinics at Carl R. Damall Army Medical Center (CRDAMC). This form will be used in a research project where I will compare patient observations of healthcare worker hand hygiene compliance to my observations as an independent trained observer. If patient observations are found to be valid, then the patient survey form will be used as part of the Infection Control Team's ongoing hand hygiene surveillance.

Public Health Significance

Monitoring hand hygiene compliance by healthcare workers falls under the public health service of assuring a competent public health and personal healthcare workforce. The CDC and WHO have linked hand hygiene compliance with decreased healthcare associated infections (HAIs). Reports on healthcare worker hand hygiene compliance are required for hospital accreditation and are included in all Infection Control Department’s surveillance programs. Using patient observations is a cost-effective way to measure compliance and actively engages the patient in their healthcare.

Highlights of practicum

- Working with Infection Control team at CRDAMC
- Learning how to conduct primary research

Advice for Future Students

- Start planning early for your practicum and thesis.
- Be flexible with scheduling.
- Be patient!
Research in Public Health

Practicum Highlights

- Being a part of innovative research in the medical field
- Gaining experience in public health research

Advice for Future Practicum Students

- Put yourself out there and be proactive! Revolutionary findings do not happen without tenacity and drive!

Research in the Seton Hospitals’ Emergency Department

By: Gena Sadler

With collaboration of Seton Family of Hospitals and Hospital Physicians in Clinical Research, or HPCR, I was able to assist with research in an Austin emergency department at Brackenridge Hospital. Several current research projects were available for my assistance. One such project is hoping to save hospitals thousands, if not millions, of dollars in the future. There has been growing concern among physicians that unnecessary x-rays are given every day. HPCR is doing groundbreaking research to solve this problem. Their research study will demonstrate whether doctors and patients can predict if a patient’s bone is broken. If results prove this is possible, unnecessary x-rays can be avoided.

Along with helping in the surveys for this study, I was also able to lend a hand with writing a protocol for a future study on screening for brain injuries and a case report of a recurrent patient.

Public Health Significance

HPCR is providing the backbone for public health in the Austin area. In line of the essential public health services, emergency department research monitors the health status and identifies diagnoses, and investigates the health problems of the community. Once this is complete, the public can be informed and educated, changes can be made to ensure better health, and quality service can be implemented. Most importantly, research is always performed, thus continually improving the health of the community.

The case report I wrote will be published for anyone to educate themselves on a sample of a recurrent patient in the emergency department. Also, the protocol will initiate IRB approval and important research on brain injury assessment. The ongoing x-ray study at Brackenridge will facilitate much needed evaluation of x-rays in the emergency department. All of these studies will further improve the health of our community, as well as monitor the emergency health needs of Austin.

Medical Research
http://www.unn.edu.net/clinical-research.html
Public Health Significance

I believe the essential public health services that was mostly related to my practicum was the informing, educating and empowering people about health issues and mobilizing partnerships with different committees to provide solutions to healthy options in a hospital setting.

For example, one of the challenging parts was to get people involved - to constantly motivate them to drive their momentum. We had to conduct meetings, send out emails repeatedly to encourage people to step up for changes they want to see and to actively implement those. We came up with strategic plans to help different subcommittees. The gift shop manager is now heading healthy changes in her gift shop and we are helping her with regards to ideas/ resources etc.

My host organization is very much involved in community partnerships with regards to Obesity. They have different intervention programs such as HLHL that help obese/overweight children. And just past month they hosted their yearly reunion of HLHL program.
Youth Empowerment & Obesity

Practicum Highlights

- Helping start a youth-led obesity initiative in partnership with Mendez Middle School.
- Working with middle school students.
- Students developed presentations that they presented to incoming 6th grade students.
- Helping students become leaders in their community and watching them learn and grow.

Lessons Learned

Advice for Future Practicum Students

- When doing your practicum, it is important to be flexible. Always be willing to change your plans and adapt to your environment.
- Having good communication with your community preceptor is the key to accomplishing your objectives, and having a great experience.

Youth Action for Healthy Lives: Students creating change

By: Nicole Suarez

This summer, I had the opportunity to work with the Austin Project to help start a youth-led obesity initiative at Mendez Middle School in Austin, Texas. The program is called Youth Action for Healthy Lives (YAHL).

YAHL’s key goal was to help increase awareness about the obesity issue that affects Mendez and the Dove Springs Community. TAP decided to tackle the obesity issue in this community by creating an opportunity for students to take a leadership role. They were responsible for identifying the strategies, resources, and/or projects that were needed to address childhood obesity in their community.

My role was to act as a facilitator and guide students as they worked on their projects. I also wrote a literature review comparing the frameworks of similar youth groups. This information will be used to help make the YAHL program a permanent part of Mendez Middle School.

Public Health Significance

This initiative is directly linked to the Core Function of Policy Development, which includes the Essential Service of informing, educating, and empowering people about health issues.

During my work with YAHL, I educated and informed the students about obesity. After they had that information, I gave them the resources and guidance to empower them to create change in their community. They have many ideas that they would like to work on in the future such as creating a community garden, and starting a farmers market at their school.

TAP is very involved and aware of the health issues in the Dove Springs Community where Mendez is located. TAP has hosted wellness/health fairs in the community. They also work closely with Children’s Optimal Health and the Dell Children’s Hospital, to create sustainable school programs that promote healthy lifestyles.
Data gathering is still in progress, however, some results show that more skunks prefer bait flavored with fish, while raccoons are attracted to sweet bait types. Selecting one bait type for distribution that is attractive to a variety of species can save the state thousands of dollars.

**Rabies Incidence in Texas 2012, all species**

Copyright © 2012 Texas department of State Health Services, Zoonosis Control Branch

**Public Health Significance**

The most critical function of the DSHS is to assess community health needs through statewide surveillance activities.

**My role in assessment**

- Evaluate the attraction to rabies vaccine-bait that has been distributed at select locations within the county.
- Observe and record the species, location, date and time of animal interaction with various species.
- Most importantly, evaluate the acceptance each animal has of various flavors of bait. Data collected will be used to produce that specific type of bait for distribution.

**Rabies bait vaccine surveillance and development**

**By: Tim Whoolery**

I had the opportunity to screen animal snapshots to determine their attraction and acceptance of flavored bait.

Flavored bait sites were set up at 45 locations in central Texas. The surveillance data will be used to produce vaccine that will be distributed by airplane throughout the state.

The focus of this project is the control and eradication of skunk rabies in Texas.

The types of bait flavors being compared are sweet, egg, fish, cheese and unflavored.

Data gathering is still in progress, however, some results show that more skunks prefer bait flavored with fish, while raccoons are attracted to sweet bait types.

Selecting one bait type for distribution that is attractive to a variety of species can save the state thousands of dollars.

**Highlights**

- This study is a pilot program that benefits all counties in Texas who will adopt the same bait to use in their regions.

**Lessons Learned**

It can be helpful to review recombinant vaccine methods, rabies health burden for the state of Texas and become familiar with the counties and their state health departments.

“Did someone say cheese? No, I mean, like, I really prefer you bring cheese next time...”
Maternal and Neonatal Health in Rural Eastern Uganda

Global Health Experience from Austin, Texas

By: ALISON WINTERS

Maternal and neonatal morbidity and mortality is a major health problem in rural, eastern Uganda. Safe Mothers, Safe Babies (SAFE) aims to reduce maternal and neonatal mortality in this region.

As the International Internship Director for SAFE, my job is to oversee all aspects related to the international internship program. This includes recruitment and selection of qualified applicants, preparing interns for departure, and providing guidance and support to interns in Uganda. I also took on the role of project director for two projects being implemented: “Safe Mama Kits” and “Save for Safe Delivery”.

I was able to contribute to a variety of final products. I helped create the volunteer manual, a comprehensive guide for all international interns. I also created applications, project-specific materials, and other pertinent internship documents.

Public Health Significance

Each Public Health Essential Service is related to the work of SAFE in some way. The most relevant are to inform, educate, and empower people about health issues and mobilize community partnerships to solve health problems.

During my practicum experience, I had the opportunity to address another essential service, to develop plans that support individual and community health efforts. Working in collaboration with a team of practicum students, SAFE’s Ugandan program manager, and the community group MABEDA, we were able to develop a plan to create a new, sustainable business that will provide clean birth kits to local women and generate income for the group.

I also indirectly supported the utilization of other essential services, since I oversaw all interns during their time in Uganda. Some examples of projects include monitoring health status by collecting birth registry data, informing and educating at health fairs and other more informal outlets, and linking to otherwise unavailable services, such as the e-Ranger motorcycle ambulance, pictured to the right.

Special events and Highlights

- Selected as a semi-finalist in the Dell Social Innovation Challenge
- Official launch of MABEDA’s business - assembling and selling “Safe Mama Kits”
- Students successfully complete internship and arrive back in the U.S.

Lessons Learned

- Working for a small, relatively new global health organization is way more work than one would anticipate…but a very rewarding, worthwhile experience unparalleled to any other

Program Manager, Medie Mukalu, at the community launch of SAFE’s e-Ranger and “mama kit” program. Photo credit: Alison Winters
Understanding the Needs of the Transgender Community in the Rio Grande Valley

Valley AIDS Council is a private, non-profit organization with support services and primary outpatient care for children, women, & men living with HIV/AIDS in South Texas with three main offices located in the RGV in McAllen, Harlingen, and Brownsville.

“At VAC I was allowed the opportunity to go on outreach visits throughout the region to provide information on HIV prevention as well as the importance of getting tested. It was eye opening to see how receptive some persons were more than others...something I had not seen as much while working at the college campus community level.”

Planning for the Future By: Stephanie Castellanos

The purpose of this project was to create a tool that would be able to assess the current needs of the local transgender community. Part of the difficulty initially included to identify what other community tools had been created and used efficiently before and how to adapt it locally. Residing here on the US/Mexico border would raise certain development issues such as possible language barriers. It was definitely a learning experience to translate the content and have to research certain terminology that was contextually appropriate.

As part of the needs assessment, questions included obtained basic demographic information, knowledge of HIV, & sexual behaviors. Information on experience of discrimination, violence, and access to social services was also sought. Currently, the tool is being used across the region. As part of the proposal, with the valuable information collected & preliminary findings, VAC will work on seeking additional funding to provide unique and better services for the transgender population.

Public Health Significance

VAC is one, if not the only, main non-profit organization that provides HIV/AIDS outreach and treatment services in South Texas. With a population of over 1 million in the area and the majority of the population is Hispanic, VAC works on visibility with not just community members but also health care professionals. This year, VAC will host its 25th Annual HIV/AIDS Summit at South Padre Island featuring a variety of guest speakers on current HIV/AIDS treatment and prevention.

Summer 2012   Stephanie Castellanos   Valley AIDS Council
Understanding the Needs of Local Transgender Community
Improving Safety through Improved Health

By: Matthew Cvitanovich

We addressed the topic of occupational health at Cook Children’s Medical Center in Fort Worth, Texas. Through both survey and laboratory work, we gathered baseline health data from security personnel. We then used this data to test hypotheses regarding relationships between health-related variables and the results of step test estimated maximal aerobic capacity. Results of this analysis will be used to inform a potential health intervention and to develop future fitness protocols. The final product was a presentation to the department superiors.

Discrepancies in survey answers suggest dishonesty regarding smoking and alcohol status (supported by a literature review). This must also be addressed.

Public Health Significance

While Cook Children’s Medical Center (CCMC) is known primarily for their commitment to the components of the "assessment" function as they relate to the child population, CCMC is also responsible for fulfilling these functions as they relate to employees. This practicum, beginning with a health survey and fitness assessment, provided needed information that will better inform those who guide policy development. In addition, this practicum provided insight for the development of a department-specific health intervention. Finally, this practicum has also made a small contribution to a field without extensive study.

Primary Skills

- Survey design & implementation
- Extraction of data from surveys & medical records
- Database design
- Data entry, cleaning & analysis

Advice for Future Practicum Students

- Don’t be timid. If you’re excited about something, have an idea or are simply have a special interest, “speak up” - you will be surprised by how much host institutions enjoy your vigor.

Security officers, representative in both age and gender of CCMC officers

http://www.fortwortharchitecture.com/md/cook.htm
Cook Children’s Medical Center Fort Worth, main campus.
This spring and summer I worked in conjunction with the Parkland Family Medicine Clinic on the United to Serve (UTS) Health Fair and the related Health Awareness Program (HAP).

The UTS Health Fair is an annual student-led health fair put on by UT Southwestern to reach out to the surrounding community. Student and faculty volunteers give their time to perform free screening services to anyone who attends.

While assisting in this venture, my work consisted of compiling and analyzing trends in the data from UTS's previous 4 years of clinical markers. On top of this, I also aided the HAP by making follow-up survey calls to the study participants. Fortunately, I was able to put my Spanish language skills to use as I assigned to call those participants who primarily spoke Spanish.

At the United to Serve Health Fair, as well as through the Health Awareness Program (HAP) follow-up study, student volunteers from a variety of healthcare backgrounds, get to see first-hand what it is like to help an entire community. Under the supervision of licensed physicians, these students properly inform and empower members of the community to take command of their wellness. We, as volunteers, contribute to closing the ‘fear gap’ within the population as we tear down perceived barriers to care.

The UTS Fair educates and informs the community at various walk-up booths on the most common questions about different body functions and systems. The HAP then follows up with the patients to assist them in finding a clinic to be their “medical home” where they feel welcome and taken care of.
Fetal-infant mortality review (nFIMR)

Public Health Significance

The FIMR process collects and analyzes information from the medical record as it relates to a fetal or infant death and grafts this information in with the maternal interview. This process investigates what the underlying issues are in a community and whether these deaths are related to systems issues or underlying health issues (i.e. very low birth weight). One of the main goals of this process is to link these mothers with services they need immediately (i.e. grieving/counseling services) and also to connect them with services they may need in the future (i.e. comprehensive medical care). A major component of the FIMR is to engage the communities and to mobilize community partnerships of those in different sectors who are in support of making an impact in the lives of women. Once enough information has been gathered in a community, the hope is to inform, educate and empower those in the community as to how to make an impact in their own health.

Going beyond the numbers in Dallas County

By: Bethany Grubb

The PPOR Phase II report for Dallas County concluded that the largest percentage of fetal-infant deaths occurred in the Maternal Health/Prematurity category which focuses on pre-conception health of the mom. The PPOR data showed that African-American women were three times more likely to deliver a very-low birth weight baby (compared to white and Hispanic women), but it is unclear why. The FIMR process and specifically the maternal interview seek to investigate if a similar thread exists between the mothers' stories and to create a solution where possible. The case review team will be charged with identifying issues and mobilizing others to become a part of the solution.

Dallas Healthy Start has worked tirelessly to educate women and to reduce health disparities in the county which likely contribute to preterm birth.

Lessons Learned

- Take the time to ask questions of those who you work alongside who are experts in their field. They can be a wealth of knowledge.
Insight into Pediatric Emergency Medicine Clinical Research at Children’s Medical Center  

By: Amanda Lee

At CMC, I worked under the public health core function of assessment as I was collecting and analyzing data from the various clinical research studies. Improving community health by assessing current policies, interventions and treatments were the most considerable goals I worked toward. My most significant involvement was in the national trauma triage study, which compared EMS provider impressions with the patient’s actual outcome. My duties involved enrolling and consenting patients into various studies, collecting and compiling data for these studies as well as developing educational materials for staff and patients.

The final products I created were educational materials about current research projects to staff members.

The trauma triage study will end on August 31st of this year. The CDC will publish results after analyzing the data obtained in an effort to revise current field triage criteria for pediatric patients.

Public Health Significance

Essential Services of Public Health

Researching new insights and innovative solutions to health problems: The research conducted in the ED at CMC is focused on improving community health as a whole. Studies that I have been involved in, such as researching the effectiveness of nebulized magnesium sulfate in the treatment of asthma seeks to improve health care in pediatric populations.

Evaluating effectiveness, accessibility, and quality of health services: The national trauma triage study I am involved in seeks to re-define existing trauma guidelines that EMS providers use when assessing pediatric patients in an effort to better address particular health concerns of this vulnerable population.

Research is an under-recognized part of public health service and is essential to ensuring that the community is receiving proper care. The scope of the research done here at CMC (and sponsored by the CDC) will affect national trauma triage guidelines.


The cost of not investing in the research priorities will lead to even greater individual and societal costs.”  

-CDC (2005)
The Importance of Hepatitis B Vaccinations in Infants

By: James Miller

My practicum experience took place at the Dallas County Health and Human Services (DCHHS) Department. I primarily worked in perinatal Hepatitis B prevention program. My duties involved monitoring the total number of cases of pregnant women with Hepatitis B and ensuring that the babies born from these mothers received vaccination against the virus. Ideally, a series of 3 vaccination shots are administered to the babies within 6 months. Part of my responsibilities entailed making sure that infants born to mothers with Hepatitis B received these vaccinations at the appropriate intervals and ensuring that the babies were immune to Hepatitis B after receiving the vaccinations. Most of the data was collected and organized in paper format. I helped transition these paper records to electronic format. This spreadsheet allows healthcare professionals to quickly see which infants are current on their vaccinations.

Public Health Significance

Hepatitis B is a viral infection that may cause inflammation of the liver. Unfortunately there is no cure for Hepatitis B, but vaccination against the disease is highly effective. My role at the DCHHS centered around informing and educating parents about the importance of making sure their child is vaccinated.

DCHHS targets infants who have a high risk of contracting the disease, by mandating that mothers who test positive for Hepatitis B while pregnant are reported to DCHHS. We are then able to inform the mother on how this disease may be transmitted to their baby. Next, we educate the parents on the importance of receiving the appropriate vaccinations.
Colorectal Cancer Screening

Colon Cancer Screening in Safety-net Hospitals

By: Bethany Phillips

For my practicum experience, I served as a research intern at the University of Texas Southwestern Medical Center (UTSW) in Dallas. I specifically worked on the Population-Based Research Optimizing Screening through Personalized Regimens (PROSPR) study. UTSW was chosen as one of the three national sites to research colon cancer screening. The part of the study I worked on was investigating the organizational factors in Parkland, a safety-net hospital, that influence completion of the recommended colorectal cancer screening process. I chose this practicum opportunity to gain first-hand research experience and I am interested in the area of preventative health.

Special events/duties/highlights during your practicum

- Performed participant observations
- Performed a systematic literature review
- Communicated findings from observations with research team

“Observing health care workers and patients in a safety-net hospital provided insight to the potential barriers low-SES patients face.”

Public Health Significance

My practicum best represented the Public Health Essential Services of evaluating the effectiveness, accessibility, and quality of personal and population-based health services (9) and research for new insights and innovative solutions to health problems (10). UTSW is collecting data on colon cancer screening in all areas of the Parkland hospital network, which involves working with their health care workers in the community clinics and hospital. The data is collected through observations of financial counselors, nurses, physicians, and laboratory personnel. These observations are used to evaluate organizational factors that would impact a patient completing colon cancer screening. The observations will be used to research and suggest possible solutions to optimize colon cancer screening, specifically in safety-net hospital networks.

Colon cancer is one of the leading causes of cancer-related death in the United States. Colon cancer can be prevented by following regimented screening protocols. The PROSPR study is working to increase screening and therefore prevent colon cancer.

Source: www.sgna.org/Portals/0/Events/Colon%20Cancer/bluestar_ad-300x211.jpg

Source: www.tracykrulik.com
Veterinary Public Health: One World

Contributions to Humanity Through Veterinary Science

By: Jenny Russell

The Region 6/5 communicable disease department of TDSHS works on a variety of health issues: zoonosis, meat safety assurance, manufactured foods, HIV/STD, TB, Community Health and Epidemiology. It is currently managed by and employs many veterinarians. This practicum consisted of rotations through each department to discover how the veterinary perspective and veterinary input can be utilized in various aspects of PH.

Veterinarians are trained to use history, objective information (data and analysis) and subjective opinions together in order to arrive at conclusions, disseminate information, and formulate acceptable interventions. This is public health.

http://www.oneworldonehealth.org

Practicum Highlights

- Associate Investigation of a case of TB meningitis
- Participation in a community TB testing operation because of the first case of US acquired MDR TB
- Investigation of a case of rabies in a Horse
- Authoring a short article on La Crosse disease for the Region zoonosis newsletter
- Networking with Veterinary Public Health professionals

Lessons Learned

- Do not be afraid to reach out to those organizations or community partners that interest you. Public Health Professionals are as eager to help you as they are the “public.”

Public Health Significance

The regional health department’s daily operation consists of passive surveillance for communicable disease. It coordinates the surveillance activities of local and federal agencies.

When health issues are confirmed, there are investigators in each department that research the case to find relevant information on contacts and risks.

A lot of the dissemination of information at the regional health department is at the individual level. Communicable disease, from HIV to TB is still stigmatized and privacy information is of the utmost concern.

Region 6/5 is actively involved in research and developing solutions to health problems. The TDSHS, Fort Bend County and a pharmaceutical company are in the middle of a novel vaccination program to help reduce skunk rabies. The community health team is actively involved with a research project involving the March of Dimes and UTMB Galveston to promote the Health Texas Babies.

“Melanie and Missy” 4Kidsandcamera
Through the Campus Health Initiative, the following Essential Functions are implemented:

- **Monitor** health status to identify community health problems.
- **Inform, educate, and empower** people about health issues.

The committee administered a needs assessment and results showed that employees wanted healthful behavior motivators on campus. As a result, it was decided that I would develop these initiatives.

Our committee also holds a monthly lecture series entitled Walkin’ the Talk which provides information on physical activity classes in El Paso, weight loss programs on campus, and tips for healthy living.

We hope that through the walking path, stairwell campaign, and designation of Wellness Ambassadors, we will be able to show our employees that you do not need a formal health facility or wellness program in order to be healthy at work.

Simple Ways to Implement Workplace Health Promotion: Developing a Walking Path and Stairwell Campaign

**By: Jessica Calderón-Mora**

Because an employee wellness program is not yet formalized at the Paul L. Foster School of Medicine (PLFSOM) in El Paso, Texas, a voluntary committee serves as the champions of this effort. As a member of the Campus Health Initiative, I was charged with developing a walking path and stairwell campaign for our employees. I was responsible for obtaining permission from various City officials to place decals on city sidewalks, as well as from school officials to obtain funding to support this initiative.

A kick-off event for the walking path and stairwell campaign will be held in which walking clubs for each department will be established. Maps of the walking path will be distributed to each employee and posted online. As part of this event, we will also be designating Wellness Ambassadors, who will act as health and wellness representatives from their respective departments.

Special duties:
- Build rapport with individuals from various departments within the City of El Paso
- Empower employees on campus to become healthier
- Provide alternatives for employees to increase physical activity
- Organize a kick-off event to establish walking clubs and Wellness Ambassadors

"Taking care of your health while at work, where we spend most of our time, benefits not only our campus but the whole community. We strive to instill healthful behaviors in our employees so that they can carry them over to their family life as well."
Physician Performs Capacity Assessments for APS

By: Whitley Aamodt

Each year, over 100,000 cases of abuse, neglect, or exploitation are reported to Texas Adult Protective Services (APS). Since March 2008, a geriatric psychiatrist at the University of Texas Health Science Center at San Antonio (UTHSCSA) has contracted with Adult Protective Services Region 8 to provide in-home decision-making capacity assessments with selected clients. APS then uses these reports to inform their interventions. This summer, I shadowed Dr. Jason Schillerstrom on his visits with APS clients and conducted research to quantify the outcome of cases referred by APS to UTHSCSA from 2008 - 2011. My project will also identify the neuropsychological domains associated with institutionalization, guardianship, recidivism, and mortality. In addition to preparing a manuscript for publication, we will present our findings at the American Geriatrics Society conference in May 2013.

Public Health Significance

My practicum addresses the Public Health Essential Service of research: I learned how to apply clinical research methodology and biostatistics to quantify the outcome of 248 cases referred by Adult Protective Services to UTHSCSA. Specifically, using records from APS and University Hospital in San Antonio, I analyzed the percent of cases APS referred to the Department of Aging and Disability Services (DADS) for guardianship, the percent of cases that remained in their homes, the mortality rate, and the percent of recidivistic cases. This fall, I will also use APS data to determine the current status of these individuals. Because capacity assessments are often “one time only” assessments, an individual’s cognitive performance could theoretically improve once proper nutrition and medical management are instituted. Through our work, we will answer two very important public health questions—do elders sent to assisted-living or nursing facilities ever improve? And if so, what happens to them?

Findings

- 91% of APS referrals lacked decision-making capacity and were referred to the Texas Department of Aging and Disability Services for guardianship.
- Of these individuals, 95% were recommended for placement in assisted-living or nursing home facilities.

Advice for Future Students

- If your practicum includes a research component, begin collecting data as soon as you can!

There are 28 counties in APS Region 8, which extends from Del Rio to Corpus Christi, Texas. It takes approximately 3 hours to drive to these locations from San Antonio in Bexar County. Graphic provided by Dr. Jason Schillerstrom.
**HIV/STD Clinic Practicum Experience**

**Practicum Highlights**
- Grant application writing
- Data collection, entry and analysis
- Interacting/Collaborating with other departments within SAMHD

**Advice for Future Practicum Students**
- Always keep your mind open, and never go into a new experience expecting a certain outcome. Public health is a dynamic, changing field; and you should be prepared to assist when and where you are needed.

**Success Monitoring/Evaluation of STD’s in the SAMHD Clinic**

The first half of my practicum I assisting in evaluating a new intake assessment system for the clinic. Data is still being analyzed and I am writing an abstract with the Chief Epidemiologist.

**Public Health Significance**

My practicum experience has allowed me to work most closely with two essential public health services:

1. **Evaluate** effectiveness, accessibility, and quality of personal and population-based health services;

2. **Develop policies and plans** that support individual and community health efforts.

The second half I collaborated with other SAMHD department employees to write a grant application for a DSHS funded HIV prevention program for the City of San Antonio.

Through my practicum experience, and working with SAMHD in general, we contributed to more accurately monitor STD rates in San Antonio, especially Congenital Syphilis. SAMHD also hopes to receive the DHSH HIV prevention program grant, which the organization has not received since 2007.
Ride 2 Own: A Program Promoting Exercise
By Andrea Fernandez

The goal of the Ride 2 Own program is to get families of San Antonio more fit.

Evaluating Changes in Your Target Population After Program Implementation

Ride2Own (R2O) is a program in which residents of San Antonio Housing Units received free bicycles if they successfully completed a bicycle education class. The goal of the program was to increase exercise via bike riding. Exercise behaviors are directly related to health, especially healthy weight. This program was addressing the public health issue of obesity, which is of great concern to the city of San Antonio.

R2O is a collaboration between San Antonio Metropolitan Health District and San Antonio Housing Authority.

As a student internist, I developed a survey instrument that was to be given to R2O participants a month after they were given their bicycles. The survey needed to be able to paint a clear picture about what it is that did or did not work, what motivated people to ride or prevented them from riding, and how they felt about the program in general. The survey instrument I created was theory-based. Results are not yet available.

Public Health Significance

R2O is an awesome public health project that fulfills the third essential service of public health.

The third essential service of public health is to inform, educate, and empower people about health issues. R2O informed people about the importance of exercise, it educated them about a particular form of exercise (bike riding), and it empowered them by providing them with the necessary resources to carry out behavioral changes related to exercise.

Although my involvement has not directly affected or helped people yet, by providing an evaluation of the program, it can be tweaked for optimal performance and it can be used to inform the guidance of other similar intervention efforts.

I feel very good about my contribution to this program and am more motivated than ever to graduate and begin working professionally as a promoter of health in the field of public health.

Advice to Future Students

- Theory is key to informing the development of survey instruments that are used to gather data about the success or failure of programs you may be evaluating. Learning theory may seem pointless, but it is directly applicable in real-world settings.

Core Job Duties Included:
- Program evaluation
- Program improvement and adjustment

Map of city of San Antonio showing areas that benefited from the R2O program. Created by San Antonio Metro Health internist, Allie Hyde.
Public Health Summer Camp

Instilling interest in Public Health Careers
By: Doug Hartfield

High school students with an interest in learning what Public Health is, as well as career and education options for the field, attended a four-day-long “camp” at the UT School of Public Health in San Antonio. They were exposed to a wide array of opportunities, from Epidemiology to water recycling plants. The idea of the camp was to preemptively address the immense workforce shortage the Public Health field is expected to face in the near future. Interesting high school aged kids in the field now can help promote academic programs that will lead them to careers in Public Health.

I planned the camp, setting up guest speakers, interactive, hands-on experiments, and field trips to see Public Health at work in the community.

Public Health Significance

We made a strong effort to inform, educate and empower kids that will soon be becoming a new generation of workforce agents. Teaching them about the countless aspects of Public Health that have an impact on everyday life allowed them to see the multitude of opportunities available to them, should they choose a career in Public Health.

We introduced them to resources that would help foster their interests and guide them in education and practice in Public Health. In addition to the lectures and field trips, we encouraged a few students to join with the Mayor’s Fitness Council as teen ambassadors.

Through this camp, we hope to foster an interest in Public Health that will help to drive these students into the workforce with careers they can be interested in and proud of.
Perceptions of Meditation

Meditation as a Clinical Intervention

By: Alex Henri

Meditation is the act of centering the mind for some benefit. Decades of research have demonstrated the benefit of meditation for reduced stress and increased quality of life. 

Our survey is meant to monitor, diagnose, and investigate the role that stress plays in patient health. It includes a truncated model of stress levels for patients and clinicians in the UHS population.

We plan to use the information gathered in the survey to create educational materials about the role stress plays in health. We also plan to design a meditation course for implementation at the hospital. We hope that the courses we design can serve as a template for more permanent preventive health projects in community hospitals around the nation.

We also forged a community partnership with the Office of the Chaplain at UHS in order to learn about the role stress plays among patients. We plan to continue the partnership with the chaplain as the project moves forward.

Lessons Learned

Start paperwork early, and engage the bureaucracy as often as possible. The approval process can be long and arduous.

Physicians are at a high risk for stress burnout. Our study is meant to address clinical stress and train doctors to address stress in their patients.
Kicking Catheter Associated UTI

**Practicum Highlights**

- Collaboration with multiple Veteran Affairs Hospital sites to analyze and increase the awareness of how to appropriately treat catheter associated asymptomatic bacteriuria and Catheter associated UTI.
- Survey administrations to medical residents regarding treatment guidelines

**Lessons Learned**

Communication is a vital component of public health. I found it especially true during my practicum experience when I had to go into the VA hospital and interact with the residents during our survey administration phase of my project. I learned to ask for advice when placed to do an unfamiliar task or in a new environment. My mentor and team shared their expertise on survey administration and how to interact with the medical staff, which significantly improved my practicum experience.

**Measuring outcomes in patients inappropriately treated for catheter associated asymptomatic bacteriuria**

By: Christine Li

My role in the Kicking CAUTI campaign has been using the electronic medical record to identify appropriate and inappropriate antibiotic treatment of asymptomatic bacteriuria (ABU) as well as appropriate and inappropriate antibiotic treatment of catheter associated urinary tract infections (CAUTI). As part of the study, I also participate in distributing survey on knowledge of how to treat bacteriuria to medical residents at the VA at San Antonio. The surveys are part of the effort to educate medical professionals on the proper usage of antibiotics when treating bacteriuria.

The premise of the study is that asymptomatic bacteriuria should not be treated with antibiotics, because the adverse events brought by misuse of antibiotics outweigh the benefit of treating organisms in the urine. The study hypothesizes that avoiding inappropriate antibiotic use in the hospital setting will improve patient safety and outcome by reducing patients’ chances of developing multi-resistant organisms, and adverse antibiotics reactions.

**Public Health Significance**

Urinary catheter-associated infection is the most prevalent healthcare-associated infection worldwide. This trend has been perpetuated by the widespread use of urinary catheters in the healthcare settings, sometimes without proper indications. Researching the medical record and learning the medical residents knowledge on treating catheter associated urinary tract infection and bacteriuria greatly improve public health in regards to patient safety.

In an era when we are becoming more conscious of the idea of scarcity, rationing healthcare through a cost-effective way is one of public health’s top priorities. Therefore, the Kicking CAUTI campaign and study will not only improve patient safety, but also aid in the process of appropriately rationing healthcare and avoid unnecessary financial burden from antibiotics overuse.
A key finding of the experiment was that individuals in the study clustered not by species, but by previous exposure to HIV, and I applied methods to quantitatively measure this clustering between groups. I also identified splicing differences between the species in several genes known to be involved in T-cell activation.

My personal responsibilities consisted of employing various bioinformatic and biostatistical methods to compare transcriptional behavior patterns between the species as well as to investigate alternative splicing phenomena within the transcriptome.

Within populations we see significant phenotypic variants with respect to HIV infection and disease progression. Being able to identify phenotype based on transcriptional signatures can give insight into prognosis and optimal treatment, and our work seeks to connect this phenotypic variability within the population with the mechanisms that underlie it.

Further, a deeper understanding of T-cell activation and its role in AIDS progression could be useful in the race to develop an HIV vaccine. Future trials could conceivably use transcription signature methods to identify efficacy to some extent before engaging in full-blown cohort studies. This would be incredibly faster, cheaper, and safer if it were made possible.

The Ahuja lab in general has made a variety of contributions to understanding HIV and AIDS at both the individual and population level.

Alarming Statistic:
The CDC estimates that there were 48,100 new cases of HIV in the United States in 2009.

Advice for Future Practicum Students

Begin thinking through your project early in the school year. Find something you would like to study and spend your free time in that lab or with that professor – it will only make your practicum that much more interesting and robust!
EMPOWERING LATINOS AND THEIR HEALTH CHOICES

By: EDUARDO SESATTY

My experience at my practicum site was very eye opening to say the least. I mainly worked in community health initiatives to inform and empower Latinos to make better choices about their health and education.

I was involved in creating reports and collaborating with other health advocacy partners in pushing for good legislation while attempting to involve Latinos in the process.

My part, well my part involved mostly data collection for these legislation initiatives. I created a legislative brief noting the progress made in the push for a smoke-free law in Texas workplaces and found that this law directly affects Latinos, since more than a third of people working in service positions are Latinos.

Public Health Significance

At La Fe PREC we mostly monitored the health status of the Latino population in Texas. Through data collection and collaborations, reports were constantly created and updated to reflect the health issues of Latinos.

Informing, educating, and empowering Latinos through trainings and peer mentoring was an essential part of the concurrent projects at La Fe. Through meetings and collaborations, La Fe PREC attempted to mobilize community partnerships and developed policies that supported Latinos specifically.

Finally, the CENA Project allowed us to link our senior citizens to personal health services involving hunger issues so they would not be forced to choose between food and medicine because of the high expense of both.

Special Events

- I formed part of the TX Tobacco Prevention Coalition that involved various health advocacy leaders lobbying for a statewide smoking ban at all Texas workplaces.

Lessons Learned

- Never assume you know your community’s needs, always seek out their opinion. They much appreciate being listened to.

Guadalupe Cultural Arts Center candle (My Worksite!).

www.sciencebuzz.org
Dental Population Health Metrics

By: AIDA M. SOLIVAN-ORTIZ

My practicum was held at the US Air Force Medical Operations Agency (AFMOA), located at Kelly Air Base in San Antonio, TX.

The experience included the preparation of the USAF Oral Health Report for fiscal years 2009 and 2010; this report compiles oral health status, descriptive, demographic, and dental care utilization data for all active duty Air Force members.

Dental Corps’ leadership utilizes these results to assess dental population health trends, provide preventative services and oral health education, identify required manpower, dental professionals and training needs, and to allocate resources in areas where they are most needed.

Public Health Significance

The USAF Dental Corps’ mission is to maintain a dentally fit and healthy Force. A division of AFMOA, the Dental Directorate (SGD) is one of the head components of the Dental Corps, and it is responsible for the Air Force’s overall dental operations, including management of all its dental professionals and resources.

AFMOA/SGD’s responsibilities are related to the core functions of Public Health, Assessment, Policy Development and Assurance:

- It deals with assessment of all USAF dental treatment facilities, personnel and resources, as well as of USAF members’ oral health status;
- It is highly involved in policy development since the Dental Directorate utilizes all the available resources and information to develop dental health plans and policies; and,
- It practices assurance or enforcement of plans, policies and programs to ensure maximum oral health among military populations, and efficient utilization of allocated and available resources.

Practicum highlights

- This practicum was a fantastic opportunity to acquire valuable knowledge on various USAF dental public health surveillance systems.
- I was fortunate to meet outstanding public health and dental professionals who graciously shared with me their work ethics, expertise and vision.

Lessons Learned

- Communication and collaboration are essential elements for a great practicum experience, and a successful career!!

Cover page, source: https://kx.afms.mil/kxweb/home
Refugee Focus Groups

Refugees’ Culture, Behaviors, and Beliefs Concerning Health Care

By: Emily Watters

For my practicum, I conducted focus group interviews concerning access to health care with refugees in San Antonio. The refugees in San Antonio are from Somalia, Sudan, Burundi, Yugoslavia, Vietnam, Afghanistan, Iran, Iraq, Burma, and Nepal. We interviewed people from Nepal, Burma, and Burundi and have plans to continue the interviews until data saturation.

The interviews focused on barriers to health care and in particular, the culture and context of those barriers for the refugees. The host organization provides health care to the refugee population at a student-run free clinic twice a month.

Public Health Significance

The Public Health Essential Service that relates most closely to my practicum experience is: “Evaluate effectiveness, accessibility, and quality of personal and population-based health services.”

In particular, I was able to assess the accessibility of health care services from the patient’s point of view. By doing a qualitative research approach to the question of barriers to health care access, the information we learned came in the form of narratives and gave the host organization and myself a fuller understanding of what issues this population faces in accessing health care.

Special events/duties during your practicum

- Meeting refugees from all over the world
- Learning about community resources for refugees

Lessons Learned

OR Advice for Future Students

- Working with people can be difficult! Everyone has a different schedule, so be flexible, and always have a contingency plan.

Summer 2012 • Emily Watters • San Antonio Refugee Health Clinic • Access to Health Care
South Texas Environmental Education and Research (STEER) immerses health professions students and faculty in the unique culture and environment of the Texas-Mexico Border. Our purpose is to reunite Medicine and Public Health (STEER, 2011).

Each summer, MD/MPH students from San Antonio head to Laredo and Harlingen to experience first-hand the intersection of public health and medicine through a real world study in environmental health. Read the summaries below to learn about the STEER program through the experiences of UTSPH students.

http://steer.uthscsa.edu/index.aspx
Rabies: The Silent Epidemic

By: Chris Alonzo

In Laredo our STEER group received a series of focused lectures on the spread of Rabies and why it has occurred rapidly in the South Texas region.

In 1994 a state of emergency was issued due to increased infections due to displaced coyotes and raccoons spreading the rabies virus northward.

The response to the rabies outbreak was the development of the Oral Rabies Vaccination Program (ORVP), which dispersed rabies vaccines, inoculated food pellets into the area to generate immunity in wild animals to stem the spread of infection.

Although I did not participate in the aerial drops of food pellets, or design the intervention I was able to present a small project based on analysis of immune responses in wildlife.

In 2010 59% of coyotes were exposed to vaccine of which 74% showed immune responses.

Public Health Significance

The move to develop and implement the ORVP follows the essential health services of Mobilization and the Development of Policy and Plans.

The onset of epidemic status and the necessity of massive post exposure prophylactics aided in showing south Texas there was a massive problem.

Although garnering more prophylactics would have been effective in treating people, it was not a long term solution. It was decided that halting the spread of the virus was more impactful and treatment of wildlife was deemed to be the most effective way at stemming infectious spread.

The method of dropping vaccine inoculated pellets allowed for maintaining safety for personnel as well as a viable option to disseminate vaccine.

The program showed a high success rate and showed a 74% efficacy in generating animal immunity to the rabies virus. The epidemic was thus silenced.

Some dogs have a bite much worse than their bark.

- The protocol we learn about in dealing with rabies isn't the 1st line of defense against rabies. Stopping animal transmission is the most effective and least costly mode of preventing rabies in people.

Visitation to Local Animal Shelters

- Shown the process of animal vaccination upon pick up of stray animals
- Lecture on vaccination of wildlife via air drop of immunized foods.
Inform, Educate, and Empower

The STEER program was an enriching experience that opened our eyes to the unique situations that thousands of people are dealing with every day. However, the students were not the only ones being educated. STEER does a fantastic job partnering with local clinics and organizations that provide health education and services to the underserved population at the border.

Organizations like the Sisters of Mercy, the Gateway Community Health Center make a visible difference in Laredo.

Empowering patients and future doctors alike is one of STEER’s best features.

Experience what its like to live on the border

- Visited colonias, spoke with residents, and shopped for groceries on a food stamp budget.
- Talked with the sheriff of Zapata County to get the truth about Cartel activity on the border.

Be prepared, and come with an open mind

- Overall STEER was extremely enriching. Truly a once in a lifetime experience so multifaceted it is hard to do it justice on paper. Be prepared, and come with an open mind.
Public Health Significance

My practicum experience primarily relates to the eighth Essential Service of Public Health, which is “Assure a competent public health and personal healthcare workforce.” At the heart of the STEER program and the Department of Family and Community Medicine is fulfilling the day-to-day health needs of the South Texas population. Future health professionals must become aware of those needs in order to address them at present and contribute to surveillance efforts.

The combination of environmental health instruction in the field, didactic learning from local experts on endemic diseases, community health center partnerships, and colonia home visits instilled in me a solid cultural competency foundation. Equally important was visiting drinking water and wastewater treatment plants as well as a landfill to understand how sanitation and waste management keep people healthy—and what could happen if those services failed.

Environmental Medicine and Border Health in Laredo

By: BRIANA DUNKIN

This past summer, I learned about medical and public health concerns specific to the Texas/Mexico border. The South Texas Environmental Education and Research Center within the Department of Family and Community Medicine at the UT School of Medicine at San Antonio organizes a four-week community-based course involving health professional students in the many environmental and cultural health issues that plague the area.

My involvements included collecting field data for Rio Grande water coliform analysis and mosquito analysis. I also discussed health disparities with fellow students and learned about the roles of local public health personnel.

The final product I created included a reflection paper and presentation on how curanderismo affects health practices in the local population.

Advice for Future Students

Make an effort to relate with the instructors (many of whom reside in the area) and other members of the community to border culture! Combining “extracurricular” experiences (such as meeting two local families outside of the program) with the practical skills I learned made my STEER rotation truly memorable.
Unique Health Care Models in South Texas

Border Healthcare Delivery

By: Jill Farragher

During STEER we were exposed to many different professionals and organizations representing the wide-range of opportunities available to work in public health. As an MD/MPH student, I found the crossovers between public health and primary healthcare delivery as especially interesting.

The Brownsville Community Health Center particularly caught my attention due to the many services that were provided at this one location. The system was very streamlined, and patient care & experience was at the forefront of the institution’s priorities.

Additionally, meeting with a local promotora showed us how we can emphasize prevention on an individual basis in a community.

Visiting a local curandera also showed us the importance of a community’s beliefs and how we can use cultural beliefs synergistically with “normal” medicine to help treat our patients.

The Highlights:

- Visiting the new Brownsville Community Health Center
- Learning prevention practices from promotoras
- Visiting with a local curandera

“As fortunate as I've been to have traveled abroad and participated in an international medical trip, STEER was an equally—if not more—enriching experience. Healthcare delivery on the South Texas border is an excellent example of the initiatives occurring in healthcare that we can adapt nationally to emphasize the important of primary health care and prevention.”

Public Health Significance

Going into STEER, I can’t say that I had a true understanding of the program I was about to experience. In retrospect, I would not change anything about our STEER experience. We were given a great vantage point as to the different challenges that face the delivery of healthcare on the border. Through the connections of the STEER staff with the community, the vast array of speakers we heard from and the field trips we went on were invaluable in understanding the dynamic of the

South Texas communities and their healthcare needs.

Though our day-to-day activities were unique to the South Texas border, all of our experiences at STEER are applicable to different communities and areas around the country.

STEER was especially important to demonstrate the necessity of public health policy and advocacy programs in under-resourced and marginalized communities.
A Lesson from STEER: Controlling the Rabies Epizootic

By: Inez Leal

One of the most fascinating things that I learned was how the rabies epizootic is controlled. In Laredo, there is a lot of brushland populated by wild gray fox and coyotes, which can pass the disease to domesticated animals and humans. As a result, the city of Laredo decided to vaccinate the fox and coyotes. It is too expensive and time consuming to catch these animals, so Laredo drops dog cookies filled with the vaccine from planes. This rabies vaccine drop is a yearly measure that has been proven effective at controlling the disease.

Public Health Significance

“Develop policies and plans that support individual and community health efforts”

-American Public Health Association

Laredo also has to deal with problems concerning mosquitoes, unvaccinated animals, and feral dogs. Many of the plans that Laredo has in place concern education. When education doesn’t work or isn’t enough, measures such as the vaccine drop are planned. Laredo, while well developed in some areas of public health, is still working on different needs. One problem that should be addressed is the animal shelter.
What makes STEER so unique? Variety and Expertise

By: Lanna Little

I think what makes STEER so unique and special is that it packs so many diverse topics and experiences into one trip. Every day is a different lesson from someone who is an expert in their field. For example, we spoke with the Sheriff of Zapata County about his views on the drug war, and other issues affecting the safety and health of the border population, visited Mercy Ministries to speak with Sister Mary Luisa Vera about the generous, successful, and creative initiatives that they have in place to assist the persons in their community with limited resources, had a lecture about the setup of the Healthcare system in Mexico given by Rudy Rincon, a Mexico-trained physician, heard from Mike Trevino, about how he runs the Gateway Community Health Center and the list goes on.

Public Health Significance

One of my favorite parts was going down to the Rio Grande to collect water samples. I was so happy that we were able to actually get into the water. I think one of the most important connections for us to make as doctors looking at the environment's effect on health is water-borne diseases, which are often gastrointestinal diseases.

For anyone who is going into medicine, it is not enough to stop at going down to the river, collecting water samples and analyzing them for E. coli and fecal coliforms. We need to think about the disease that results from those fecal coliforms and we need to think about the signs and symptoms that we would see in our patient. That, to me, is the most important part.

Dengue Fever

- Mosquito-transmission diseases are a growing factor in the US and around the world
- Learn how to identify the mosquitoes that transmit Dengue (see photo to Left)

STEER gives you a great opportunity to think about some infectious diseases that are important to understand - take advantage of this by reviewing what you know about these microorganisms before or after the lectures.
The Solution to Pollution Is Not Dilution

The Challenges of Protecting International Waters

By: Johanna McLendon

After my month in Laredo, TX with the STEER program I came away with a better understanding of the context of medicine. I learned about local environmental issues, the city’s role in public health, prevention of infectious diseases, and the challenges of living in a colonia.

The most impactful experience for me was helping with the Clean Rivers Program hosted by the International Boundary and Water Commission.

Our group tested water samples from 8 sites along the Rio Grande for its physical properties. We then filtered our samples and incubated the filtrate to enhance the growth of any microbial organisms.

Then our instructor, Tom Vaughan, asked me to go in to his lab the following day to look for coliform growth. Many of the sites we sampled were found to have high concentrations of coliforms.

Public Health Significance

Finding coliform bacteria in our water samples is a sign of contamination from raw sewage. This is surprising given that there is a large water treatment center in Nuevo Laredo that was built recently with great financial assistance from the United States and Texas.

The speaker for the STEER program from the International Boundary and Water Commission told us that on the Mexican side of the Rio Grande, there are some raw sewage pipes that are not connected to the water treatment system and are being dumped directly into the river, with hopes that dilution of the sewage will be sufficient for its disposal. However, these bacteria, along with other organisms, can cause gastrointestinal disease in humans and cause harm to the wildlife dependent on the river. This is a serious problem. The solution to pollution is not dilution, though conventional thought has held that dilution is sufficient.

By participating in water sampling, we were able to collect more data as evidence that the Rio Grande’s water is not being well-maintained. Hopefully, public health officials on both sides of the U.S.-Mexico border will be able to find a solution to protect their citizens from waterborne disease when they realize that fecal coliforms are so readily present in the water supply.

Advice for Future Practicum Students

While you are in your practicum, try to get to know the community you’re in as much as you can! When I had opportunities to share what I was learning in STEER with people I met outside the program, my understanding of public health was solidified and I was able to gain the advantage of multiple perspectives.
Public Health on the Texas/Mexico Border

By: Ryan O’Hara

The STEER program serves as an observership which functions to inform students of the variety of public health activities that are taking place in the border region of Texas and Mexico. This area of Texas, called the valley, presents a unique arena for practicing public health. Due to this the participants of STEER are exposed to a wide variety of public health interventions, be it a catholic nun that works in community education and civic engagement to visiting dams along the Rio Grande that protect the area from dangerous floodwaters. The STEER program provides an excellent opportunity to further your understanding of the public health work that occurs outside of medical facilities.

Public Health Significance

The most important public health impact of the STEER program is exposing students and future practitioners to efforts that are currently underway in the border region. This functions to mobilize students to not only consider further work in the area but how various strategies can be implemented in other parts of the country. It is quite refreshing to get away from the textbooks and classroom theories and see people engaged in improving public health.

The STEER program is an excellent opportunity to broaden your understanding of how public health can be applied in a variety of locations.

The opportunity to visit a local curandero (faith healer) was an amazing chance to learn of Mexican cultural beliefs.

Interacting with promotoras de salud (health promoters) and seeing their successes was very inspirational.
Sociocultural Orientation

Herbal Medicine at the Border:
Citizens along U.S./Mexico border depend on herbs for medicinal purposes

Mr. Tony Ramirez, a botanical researcher and herbal consultant who is highly regarded in the South Texas community, took us on a tour of a local ranch while he presented an overview of native flora that are often used for medicinal purposes. We learned that many citizens along the border choose to use herbal remedies as opposed to prescription medication for several reasons, including cost, culture, and convenience. Mr. Ramirez also provided samples of some of the serums he had made and explained what each one was used for. For example, one extract was called “mata dulce,” which translates into “kill sweetness.” It is used primarily by diabetics to deter them from eating sugary foods because when placed on the tongue, it alters the taste buds to where foods containing sugar are no longer appetizing or satisfying because they will not taste sweet.

Public Health Significance

Several of the Essential Services of Public Health apply to this practicum experience. In regards to the segment on herbal medicine, the following are applicable:

- **Monitor** health status to identify community health problems.
- **Inform, educate, and empower** people about health issues.
- **Assure** a competent public health and personal healthcare workforce.
- **Research** for new insights and innovative solutions to health problems.

In order to provide services to a population, it is crucial to have an understanding of their sociocultural orientation. This valuable knowledge will help you be more competent in the needs of the people, thus allowing you to talk to the public about health issues. This will also allow you to address health problems prevalent in the community and research ways to improve upon the current situation.

Highlights from STEER Laredo Summer 2012

- Toured the Lamar Bruni Vergara Environmental Science Center
- Water quality testing at 8 sites along the Rio Grande and analysis of results in TAMIU laboratory

Lessons learned

- One of the primary lessons I have taken away from STEER is how important it is for me, as a future physician, to have an understanding of the community in which I serve. So many factors affect how a person views healthcare and medicine – their culture, the environment, their superstitions. These multiple dimensions that affect health is what makes medicine both challenging and exciting.

Tony Ramirez sharing about his homemade medicinal remedies with the STEER Laredo students. Photo courtesy of Roger Perales.
Health and the Environment

STEER Highlights

- Learning from experts in the fields of public health, affordable public housing, Autism, and environmental quality.
- Experiencing public health initiatives in action.
- Interacting with leaders that implement public health strategies.

Advice for Future Practicum Students

- The South Texas Environmental Education and Research (STEER) program is a great opportunity to experience the interaction between health and the environment.
- STEER allows one to have a global health experience within the Texas borders.

Exposure to Toxins and Our Health

By: Joshua Pozos

This summer I attended the South Texas Environmental Education and Research (STEER) program in Harlingen, Texas. The program is directed by two amazing people, Dr. Beatriz Tapia and Dr. Noe Garza. STEER focuses on several aspects of public health. Some of the topics covered include the interaction between the environment and health outcomes, public health disparities, and improving cultural competency.

We interacted with various programs and community leaders as part of the STEER experience. For example, we had the opportunity to visit a dialysis center. Our group talked with patients, and asked questions regarding exposures to toxins and the health of their kidneys.

One of the findings we discovered is that some of the individuals on dialysis had significant amount of exposure to toxins, such as heavy metals, pesticides, and harsh chemicals.

Public Health Significance

The Public Health Essential Services, as defined by the American Public Health Association, which are most closely related to my practicum experience are investigating, informing, educating, and empowering.

As public health advocates, we learned how to investigate possible environmental exposures. Once the source has been identified, we can begin to inform and educate our patients and the public about the possible source and exposure.

Sharing this information with the public empowers the people to make the best choice possible in terms of limiting the amount of exposure for themselves and their family.

Another important part of investigating is having patients fill out an environmental questionnaire. When a new patient comes into a clinic he or she fills out medical, family, social, and mental histories. If one aims to fully understand a patient’s health, then an environmental history should be included as part of the patient’s background.
Environmental Public Health

Students gain hands-on knowledge about environmental public health in South Texas at STEER in Laredo.

By: Whitney Rome

Each day at STEER was an opportunity to learn more about a public health issue affecting South Texas. We were able to visit water treatment sites, the city landfill, the animal shelter, and help with water testing in the Rio Grande.

Visiting the sites and participating in some of the work helped me understand environmental public health issues in the context of a community with specific challenges.

Public Health Significance

Through this practicum, I was able to engage in the monitoring of public health issues through collecting and analyzing mosquito larvae from the surrounding community and by participating in routine water quality monitoring of the Rio Grande.

We also learned from public health professionals who help ensure that septic systems, restaurants, and other establishments abide by relevant rules and guidelines.

Experts in various public health fields gave seminars and led field trips on the various topics that we studied. We were able to learn from professionals from the health department, a sheriff’s office, and a community health center, among many others.

Presentations of students’ final projects provided a more in depth study of specific public health issues affecting the area.

Additionally, the UT Health Science Center in Laredo is heavily involved in the public health service of informing, educating, and empowering people in the community through their research. This includes work with promotoras (community public health workers) in the community who visit the homes of family members to educate on public health issues.

Environmental Public Health

Students test the water quality of the Rio Grande.

Photo courtesy of Laredo staff.

Special events/ duties during your practicum

• While in Laredo, we had the opportunity to talk to residents of the community and gain valuable insight about public health issues in the area.
• Being in Laredo provided the opportunity to learn about the unique aspects of public health related to international travel and trade.

Advice for Future Students

• Ask lots of questions and learn as much as you can from each person you meet. The people who live where you study will be an incredibly important source.

Students identify types of mosquito larvae which they gathered from the community.

Photo courtesy of Laredo staff.
Environmental Health in South Texas

The Environment-Anything and Everything-and Public Health

Down in Laredo, we were confronted with a very different population, mostly Hispanics and lots of immigrants. This brought a challenging set of cultural beliefs, education levels, language barriers, and unique environmental factors. We had daily seminars, discussions, and field trips to expose us to the wide variety of environmental issues that affect health. From sampling Rio water for E.coli to discussing health education with community promotoras to visiting community health centers and seeing where we could potentially work as physicians. Our group was focused on learning about the various safety, nutrition, hygiene, and diseases, such as diabetes and malaria, affected this population. We found that a strong community initiative to educate is important and that understanding rather than bypassing cultural differences is key to behavioral change for positive health impacts.

Public Health Significance

Our experience principally led us to diagnose and investigate health problems and health hazards in the community. We learned that malaria infected mosquitoes live in the inexplicable amount of tires in people’s yards. We learned how traditional medicine still influences health practices, whether through beliefs or consulting herbalists. We saw how the infrastructure of Laredo is not conducive to daily exercise and can exacerbate the obesity, diabetes, and other health problems seen. As a group of medical students being chartered around the city, we mostly observed and aimed to understand the multifactorial influences on a person, and community's health. Interacting with private and government organizations is crucial to getting things done. I will definitely relate what I learned there to my practice of medicine and in remembering how every detail and every environmental factor plays a role in health.
Autism: An Epidemic in the Shadows

The South Texas Environmental Education and Research is a program partnered with the University of Texas Health Science Center at San Antonio, aimed to provide students with a firsthand community-based experience in the Lower Rio Grande Valley (LRGV) of Texas. It allows students to see Public Health in action, develop a further understanding of the relationship between the environment, the community and public health, and the rich culture of the region. For 4 weeks in Harlingen, Texas, 9 students, including myself, spent 8-9 hours a day in either the classroom, hearing from workers in public health from various backgrounds, or at a site that played a major role in the public health of the LRGV. Every day had its own theme, with meetings that discussed pertinent topics and concerns within that area, such as Colonias, Autism, Immigration, the EPA, etc.

Public Health Significance

Autism is a growing epidemic in the country, but it has an even more profound presence in the LRGV. During my time in Harlingen, we had the pleasure of meeting two amazing parents who each have a child with autism. They shared their experiences living with an autistic child, the hardships experienced with the lack of resources and their beliefs on what we can do as public health workers to improve the lives of not just children with autism, but those connected to them. Having a background that includes working as an Applied Behavioral Analysis Therapist for children with behavioral problems, Autism and the lives it affects has a special place in my heart. We had the opportunity to meet with public health workers who have taken a special interest in the spectrum disorder, and hear their thoughts on the potential causes of Autism, since they are still unknown, that could include environmental exposures. STEER provided us with the chance to learn from people on both sides of the coin when it comes to dealing with Autism.

Advice for Future Practicum Students

“Go into STEER with an open mind. You will be surprised by how much you not only learn about Public Health, but also about humanity in general. Embrace the different experiences you may come across.”

ABA Therapy - the Best Hope for Autism

By: Jessica Sloan

The South Texas Environmental Education and Research is a program partnered with the University of Texas Health Science Center at San Antonio, aimed to provide students with a firsthand community-based experience in the Lower Rio Grande Valley (LRGV) of Texas. It allows students to see Public Health in action, develop a further understanding of the relationship between the environment, the community and public health, and the rich culture of the region. For 4 weeks in Harlingen, Texas, 9 students, including myself, spent 8-9 hours a day in either the classroom, hearing from workers in public health from various backgrounds, or at a site that played a major role in the public health of the LRGV. Every day had its own theme, with meetings that discussed pertinent topics and concerns within that area, such as Colonias, Autism, Immigration, the EPA, etc.

Autism has become what is known as a “silent epidemic”, effecting now every 1/80 children.

http://www.speechbuddy.com/blog/speech-therapy-techniques/speech-therapy-for-autistic-children/
Public Health in Medically Underserved Border Towns of South Texas

Public Health at Work in Medically Underserved Areas

By: ERICA LYNN TAYLOR

This summer I and 8 medical student classmates spent time in Harlingen, Texas with the UTHSC SA STEER program. In Harlingen we spent each day experiencing a different aspect of public health and saw how that area of public health is applied in a medically underserved area of South Texas.

Our program did not focus on one topic public health but instead focused on having us experience as many aspects of public health as possible.

For our experience, each day consisted of hearing lectures on the public health topic of the day and then visiting different sites to see the aspect of public health put into action.

Our programs final project included writing a short reflection paper on our time in Harlingen and giving a short presentation on an aspect of public health that we covered during out time with the STEER program.

Memorable Events during STEER Harlingen
• Visiting local promatoras.
• Spending weekends at the beach with classmates.

Public Health Significance

Of the Public Health Essential Service(s) (PHES) our experiences most closely focused on the aspect “inform, educate and empower”. Our time was largely focused on seeing what aspects of public health could be taken into hands of the community to better themselves. We saw numerous programs implemented in the community and run by community members to better their health and environment.

During our experience we visited numerous promatoras. Promatoras are members of the community that are either paid or volunteer their time to help members of their community in different aspects of health such as diabetes management. Such programs help with daily management of disease and obesity and also have a huge impact on cutting the costs of health management.

“The STEER program is a wonderful experience for a 4 weeks practicum. The length of the program is perfect, and each day is packed with numerous learning experiences.”
South Texas Border Health

Salud Entre Fronteras: Health at the U.S.-Mexico Border

By: Jonathan Trejo

This summer was about the one-hundredth time that I had been “in” Laredo, Texas, and I was pretty confident about what I would see when participating in the South Texas Environmental Education Research program (STEER). I was completely wrong.

Even though Laredo is a small city in comparison to San Antonio, my hometown, there are so many things going on in terms of public health, especially since it is one of the border cities with the highest international vehicular traffic volume in the United States.

Upon arriving, our goal was to synthesize the skills we have learned in our courses to public health issues present in Laredo. Our experiences with the Laredo community made us aware of the multiple facets that comprise “border health”.

Public Health Significance

During my participation in the STEER program, we were involved in several activities, from visiting the colonias to learning about water quality and monitoring.

Some of the health services that were emphasized were monitoring, and evaluation of health services provided to communities.

For example, the main source of potable water in Laredo is the Rio Grande, which is shared with the city of Nuevo Laredo. We monitored levels quality while learning about international policies on water quality.

We also learned about the colonias, and how their lack of access to health services stems from historical social issues in Laredo.

It is important to learn about the public health dynamics in the South Texas border region, especially because of increased populations, and the ability to improve health not only locally, but internationally as well.
Lessons from the Border

Brett Wilkinson

While in the Lower Rio Grande Valley, I had the opportunity to meet many interesting individuals and experience many new things. Seeing severe poverty in America first hand is an eye-opening experience, and witnessing a Curandero perform a cleansing ceremony made alternative medicine come to life. These, along with all of the other daily adventures, brought a broad prospective to issues of public health and medicine.

Further, speaking with many leaders of social change in the LRGV enlightened me to the process of truly making an impact and speaking up for those who have no voice. Hoping to make change in the future myself, these lessons will stick with me and will shape my approach to serving those around me.

Revealing Realities in the Rio Grande Valley

Many physicians have a disconnect between their views and practices and those of their patients. While on the border, I was able to gain understanding of how those around me live and believe.

For example, learning about and witnessing a Curandero in practice, has helped me to understand alternative medical beliefs and practices. Inquiring about herbal medicines and even spiritual beliefs will be part of my practice and should be greatly considered and understood by all physicians.

Visiting multiple colonias brought reality to the squalor conditions that some hard working Americans live in, that few others realize. As a physician, understanding a patient’s home situation will be of benefit when deciding what their most important health risks and needs are.

These lessons, along with many others, will affect me for the rest of my life. In practice, they will help me to treat my patients to the best of my ability.

A painful “massage”

The Curandero experience was great. Receiving a “massage” was not quite so great. Both Samy and I were squirming in pain, especially as she worked on out calves (see below).

Advice for Future Students

- The STEER experience was great and I recommend it as your practicum. Outside of convenience, it was very informative and everyday involved a new and exciting experience.
For more information regarding The University of Texas School of Public Health, Office of Public Health Practice and the practicum program, please visit: http://sph.uth.tmc.edu/practicum/