The practicum experience is an integral part of the MPH and DrPH curricula. 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 fifteenth-edition e-magazine showcases student practicum experiences throughout the Fall 2014 semester. (Prior semesters may be accessed through the e-book, a collection of student abstracts and e-magazines describing their experiences.)
## Practicum Topics

Serving Size: 1 Practicum per Student  
Servings per e-Magazine: 15

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Oxygen use in Rehabilitation

The use of high flow oxygen in rehabilitative and palliative patient care

By: Oluwatobi Adegboyega

I worked with the rehabilitative and palliative care department at the MD Anderson cancer center. Basically, I was involved in data mining for a project that was focused on exploring the use of high flow oxygen in patients receiving palliative and rehabilitative care. Having just completed classes in epidemiology and biostatistics, I was delighted that I could be able to participate in a practical clinical application of the concepts I learned.

Rehabilitation is a critical process for individuals who experience adverse events to restore important functions and to improve quality of life. This research is on use of high flow oxygen in achieving that aim.

In patient use of oxygen courtesy: http://www.chris-marquette.com/gallery/albums/Stills/Fanboys/LinusHo

Public Health Significance

The act of rehabilitation and palliation is considered a form of tertiary prevention whereby the aim of the intervention is to restore function and improve quality of life. The experience I had was in researching ways to improve rehabilitative and palliative efforts. Improving the quality of rehabilitative medicine and palliation will serve to improve the quality of life of the population thereby contributing to public health.

Intertwined with research is the process of diagnosing and investigating health issues. The department also participates in functions that links people to needed services and assures health.

My experience was largely in the area of research with the main contribution to improve the delivery of quality rehabilitative and palliative medicine.

Special events/duties/highlights during your practicum

- Used electronic medical records for data collection.
- Participated in departmental discussions and training on clinical research.

Lessons Learned

[OR] Advice for Future Practicum Students

- Try to enjoy your work even when it appears difficult. It adds to your training; such as you don’t get in classrooms.
Patterns of HIV Distribution in Harris County 1990-2010
By: Yao Akpalu

In the HIV Surveillance unit of the City of Houston DHHS I participated in conducting a survey on HIV lab reporting in 2013. The goal was to ascertain the use of the new CDC algorithm for the early detection of HIV infections. My duties included the modification of the questionnaire, dispatch to providers, and the retrieving and documentation of responses. I also did a research on the
distribution of HIV in Harris County from 1990 to 2010 based on available data.

The modified questionnaire will be useful for subsequent surveys. My research into the distribution of HIV showed a changing pattern in the foci of highest concentration in Harris County over the 20 year period. It also showed a shift from predominance among whites to predominance among people of color (African Americans) in the the same period. I produced GIS maps of the results.

Public Health Significance

There are an estimated 1.1 million people living with HIV/AIDS in the US of whom 15.8% are unaware of their infection. In Harris County, in 2010 the number of HIV and AIDS cases were 17,907 and 26,599 respectively.

HDHHS is responsible for surveillance of HIV infections and the coordination of control and prevention measures in Harris County. Early diagnosis by lab testing and knowledge of the distribution of cases are essential for achieving these goals.

The survey on HIV lab testing will help providers to adopt the new CDC algorithm-antibody/antigen immunoassay testing to ensure early detection and categorization of HIV. My research identified new foci of high concentration of HIV infections and the races most affected. This will also help the HDHHS in the planning and coordination of its intervention programs and services.

Special events/duties during your practicum

- Practice of geomapping of epidemiological data
- Role of the epidemiologist in monitoring of “Travelers Under Observation” for Ebola

Lessons Learned

[OR] Advice for Future Students

- The practicum is an opportunity to acquire or apply a new skill, not just to satisfy the requirement of an MPH/PhD program. It is helpful to apply for several posts and choose the most suitable for your needs.
Smoking Cessation Treatment Among Latinos and Barriers to Completing Treatment.

By: YOHANNA CERNA

I completed my practicum at MD Anderson Cancer Center in the Cancer Prevention Division, Health Disparities Research Department. I worked on Project Impact, which was designed to assess some of the factors why Latinos do not finish smoking cessation treatment.

The study involved collecting information with the use of qualitative interviews to identify the barriers Latinos have which keep them from accessing or completing smoking cessation treatment.

My main duty was the coding of the qualitative interviews to be able to identify patterns and themes. The coding process gave me the opportunity to put into practice the skills learned in class in a professional setting. The final result for the project will be a peer-reviewed paper.

In addition to being involved in Project Impact, I was able to participate in literature review for an upcoming project.

Advice for Future Practicum Students

One of the main things I learned is to ask questions. Although the classroom provides us with the basic tools we need in order to succeed in a professional environment, there are many things we still do not know. Having an open-mind is very important and understanding that even though sometimes we think there is a clear path to where we want to go, things change and being able to adjust is also a very important skill.

Public Health Significance

MD Anderson Cancer Center is one the leading cancer research institutions in the country. This scientific knowledge allows for more effective forms of treatment. But research is also conducted in order to prevent cancer. Interventions are designed to inform and educate our communities about health risks and the prevention of cancer.

Smoking is the leading preventable cause of death in the United States and understanding the factors that prevent smokers to seek smoking cessation treatment is very important. It has the potential to reduce the risk of developing cancer and decrease the burden of disease on our healthcare system.

Smoking is a major public health concern and cancer prevention research plays a very important role in the implementation of effective smoking cessation interventions and policies to help reduce smoking rates in our communities.
Preventing Blindness for Houston, Texans

By: Regency B. Gray

I had a number of duties at my practicum site, which varied depending on the needs of my community preceptor, PBT Programs & Community Outreach Vice-President, Monica Saenz, and her colleagues. I assisted in multiple vision screening events offered by the Program Director of PBT in Houston, Marisol Guzman. These events took place in schools and other community settings, and catered to adults and children alike.

I composed an update to the PBT Vision Resource Guide. This required me to research the many vision care assistance resources available within the state of Texas, as well as organizations providing other social services. The ultimate aim of my practicum was to assist PBT in providing underserved residents of Houston with access to free vision care and information on other social service resources.

Public Health Significance

Over the course of my practicum, PBT carried out the following Essential Services of Public Health:

- Mobilizing community partnerships to identify and solve health problems;
- Linking people to needed personal health services and assuring the provision of healthcare when otherwise unavailable; and,
- Evaluating effectiveness, accessibility, and quality of health service.

As a vision screener for Prevent Blindness Texas, I am tasked with performing screenings on underserved members of the general public. For those with poor screening results and demonstrated need, I provide them with vouchers to receive comprehensive eye exams at the University of Houston Eye Institute free of charge. Those who receive prescriptions from the Institute are eligible to receive vouchers for eyeglasses. In providing these vouchers, PBT fulfills its mission to “prevent blindness, [and] protect sight.”

Advice for Future Practicum Students

- Be diligent in tracking the number of hours you’ve completed. That’s your responsibility and nobody else’s. Should you fail to complete your required hours in a timely manner, you’re the one who will fare poorly.
- Communicate with your preceptor. They only know what you tell them, so it’s up to you to keep them informed of any changes in your plans. They’re busy professionals, not mind readers.

Prevent Blindness Texas (PBT) provides free vision screenings to underserved Texas residents throughout the greater Houston area.

Image courtesy of Mister GC at FreeDigitalPhotos.net
Public Health Significance

The project I worked with provided several essential public health services:

1. Monitored health status and solve community health problems & (2) Evaluate effectiveness, accessibility, and quality of personal and population-based health services.
   - The data for the CHIP Annual Update was collected for this reason

2. Diagnose and investigate health problems and health hazards in the community & (4) Mobilize community partnership and action to identify and solve health problems.
   - During community partner meetings members from different organizations in Austin/Travis County brainstorm ideas to identify and solve health problems.

3. Inform, educate and empower people about health issues.
   - After the completion of the Annual Update, the annual update was posted on the Austin/Travis County Website for the community to see.
Hepatitis C Virus Infection and Non-Hodgkin Lymphoma

By: Tehseen Iqbal

For my practicum, I worked on a project to determine prevalence of Non-Hodgkin Lymphoma subtypes among hepatitis C infected patients in the Department of Infectious Diseases, Infection Control and Employee health at MD Anderson Cancer Center.

Method: Data was abstracted from medical records of patients who were screened for HCV antibody reactivity at MD Anderson from 2004 - 2013. I included patients who had chronic HCV infection, who tested positive for HCV antibody, who had detectable HCV RNA viremia or known HCV genotype and who showed history of treatment with interferon prior to lymphoma diagnosis. Non Hodgkin lymphoma cases were classified using International Classification of Disease for Oncology 3rd Edition (ICD-O3) topography and morphology codes and included both B cell and T cell lymphomas.

Results: Of the total 173 confirmed hepatitis C infected cases, 152 (87.8%) had B cell lymphoma, 21(12.1%) had T cell lymphoma and 3 had not otherwise specific NHL type. B cell NHL subtypes found were as follows: DLBL 89 cases (47.8%), Marginal zone 24(12.9%), Follicular 22(12.0%), Mantle cell 9(4.8%), LPL/WD 9(4.8%), Burkitts 5(2.7%) and CLL 4(2.1%). Among T cell NHL subtypes, Mycosis fungoides/ Sezary syndrome comprised 13(7%) and peripheral T cell lymphoma constituted 6(3.2%).

Public Health Significance

Hepatitis C virus (HCV) infection affects more than 180 million people worldwide (CDC), and 70-80% of those become chronic carriers. HCV has both hepatic and extra hepatic manifestations but its role in developing lymphoma has recently been established. My project results show that chronic HCV infection can play a significant role in the B cell lymphomagenesis. Further research in this area can lead to prevention opportunities owing to early detection and therapy of lymphoma in HCV infected patients. Moreover, starting antiviral therapy early on in chronic HCV patients may prevent lymphoma development.

Essential services of public health related to my practicum project at MD Anderson Cancer Center were as follows: monitoring health status, diagnosing and investigating health problems, and researching innovative solutions to health problems.

Duties during my Practicum

- Abstracted relevant information from electronic medical records of patients.
- Created database of HCV screened cancer patients with different types of Non Hodgkin Lymphoma cancers.
- Used STATA and Excel for data analysis

Epidemiology methods may be scientific but its objectives are thoroughly human
(Alex Broadbent)
Pediatric tumor metastasis

Practicum Highlights

- Research project in Dr. Shulin Li's lab in the Department of Pediatric Oncology at MD Anderson Cancer Center
- Performed experiments on mouse models, stained lung tissue sections, and measured stain to quantify results
- Determined WSX1 overexpression correlates with higher tumor metastasis

Advice for Future Practicum Students

- I enjoyed doing this practicum retrospectively. It allowed me to focus on the research at the time and now use this semester to really reflect on the experience and refresh myself on the details. So don’t worry if you have to do your practicum credit after your actual project!
- Start as early as possible and pick something you are really interested in - it makes everything more fun!

The role of WSX1 expression in tumor metastasis

By: Camille Keenan

I performed research as a summer medical student in Dr. Shulin Li’s lab in the Department of Pediatric Oncology at MDACC. Dr. Denada Dibra was my direct project mentor who helped me investigate the role of WSX1 (a receptor for an immune system signaling molecule, IL-27) in tumor metastasis using mouse models. WSX1 is overexpressed in certain tumor cells, so we wanted to determine if its presence influenced metastatic potential, which can be very important to know for future clinical interventions. My duties for the project included handling the mice, harvesting organs, staining tissue slides, and quantifying stains to translate to numerical results. The final results showed that WSX1 overexpression does increase metastasis to lungs, and this occurs independent of the IL-27 signaling pathway. We also concluded that WSX1 overexpression was correlated with increased indoleamine 2,3-dioxygenase (IDO), an enzyme that down-regulates different components of the immune system. Therefore it is possible that WSX1 allows tumors to evade the immune response and grow via this IDO pathway.

Public Health Significance

The Public Health Essential Service (PHES) that most closely relates to my practicum experience is “research for new insights and innovative solutions to health problems.” My specific project is only a small piece to the larger puzzle of identifying molecular pathways that allow tumors to survive and grow within children’s bodies. Identifying these pathways is often the first step in targeting new therapies and drugs to eliminate the evasive capabilities of tumor cells. Research is first done on the cellular level and within animal models, so the direct impact to public health can be years in the making.

Dr. Shulin Li’s lab is researching many other aspects of pediatric oncology in addition to my project. Aside from investigating molecular pathways, they are working on novel therapy delivery systems and methods to directly target cancerous cells. Pediatric cancer is one of the major mortality risks for children aside from accidents and trauma, so continuing research aimed at solutions is very important from a public health perspective.
Posttraumatic Stress Disorder (PTSD) and Mental Health Service Use in Military Personnel

By: Jie Lin

Postrauamatic stress disorder (PTSD) is a psychiatric condition characterized by a persistent maladaptive reaction to exposure to severe psychological stress. Military personnel are at higher risk of exposure to potentially traumatic events and therefore at higher risk of developing PTSD and other mental health problems. Soldiers and veterans from the Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF) experienced a variety of mental health problems, especially PTSD.

In my practicum, I applied epidemiologic concepts and methods to review military literature on the utilization of mental health service among active duty members and veterans with PTSD and/or other mental disorders. The major findings are: 1) Military personnel with PTSD underutilized mental health service that they have access to; 2) Reasons for underutilization were not well studied. The relative importance of stigma, health care beliefs, and environmental barriers to mental health service utilization has not been well understood. The final product is a review paper to be submitted or part of background information for a future research paper.

Public Health Significance

My practicum is related to the following Public Health Essential Services:

- Evaluate effectiveness, accessibility, and quality of personal and population-based health services
- Research for new insights and innovative solutions to health problems

PTSD has a wide array of negative health impact such as increased risk of cardiovascular diseases, type II diabetes, metabolic syndrome and other chronic conditions.

Given high prevalence of PTSD among military service members and veterans, it is imperative to recognize health service needs and to develop strategies to effectively treat PTSD and associated mental illness in military populations.

Understanding health service use would help identify health care needs of our service members and their families, and to better allocate health care resources to those who need it.

Combat related PTSD is one of the most prevalent mental disorders among soldiers and veterans

http://theconcussionblog.com/2011/03/05/military-concussion-ptsd-research/

Special events/ duties during your practicum

- Searched for a large amount of military health research literature on mental health in soldiers and veterans
- Gained knowledge about major types of mental disorders and barriers to mental health service use among military personnel

Lessons Learned

[OR] Advice for Future Students

- Select a practicum that is related to your future career

It is imperative to recognize health service needs and to develop strategies to increase mental health service use in service members and veterans with PTSD


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Needs Assessment during Hospital Discharge

Transition from Hospital to Home: Patient and Provider Perspective of a Cancer Patient’s Needs at Discharge

By Joanna Manzano

Current standard of care for hospital discharge involves the patient receiving a multitude of information – written and verbal instructions that should enable the patient to transition to the community safely. The patient must leave the hospital understanding what is to be done, and know what signs and symptoms should prompt another medical consultation.

My practicum at the Department of General Internal Medicine at MD Anderson Cancer Center, delves into this important public health issue. My team designed a quality improvement project that seeks to assess the needs of cancer patients in particular, at the time of hospital discharge. We plan to do cognitive interviews on patients, caregivers and health care providers.

The project is still in its planning stage and this has given me an invaluable insight into what goes into program planning. My duties included writing and submitting the project proposal to the Quality Improvement Assessment Board, development of participant inclusion criteria, review and revision of interview guides and developing realistic timelines for the project, among others. We also submitted our project for external grant funding and are now awaiting feedback. We hope to start with data collection in January 2015.

Public Health Significance

Although, the hospital discharge encounter is a very personal experience, I do believe that it is contained in the broader domain of patient safety and health outcomes, and essentially, public health.

Of the 10 essential public health services, our planned activities and program objectives involve diagnosing and investigating health issues, as well as evaluating effectiveness and quality of personal and population-based health services.

These 2, are only few of the public health services that MD Anderson, as a premiere cancer center, is involved in. Our team’s efforts, hopefully, will provide new insights and innovative solutions to perceived problems and issues during hospital discharge.

Highlights during my practicum

- Presentation of the project proposal and plan to the Department of Internal Medicine
- Preparation of a grant proposal
- Preparation and development of components of a Manual of Operating Procedures

Lessons Learned and Advice for Future Students

- Choose a practicum activity that you deeply believe in and is closely related to your personal and professional goals. The lessons you learn and your experience will be invaluable for your professional growth as a public health professional.

Practicum activities (image by J Manzano)
Dynamic Imaging Grade of Swallowing Toxicity

By: JANHAVI RAUT

For my practicum, I worked in the Department of Head & Neck Surgery, Section of Speech Pathology & Audiology at MD Anderson Cancer Center. I worked on Project: DIGEST (Dynamic Imaging Grade of Swallowing Toxicity) under the mentorship of Dr. Katherine Hutcheson. Project DIGEST proposes to adapt videofluoroscopic measures to the common nomenclature of ordinal toxicity grading in oncology trials. This will allow for the first time quantification of videofluoroscopic swallow (also known as modified barium swallow [MBS] endpoints in modern head and neck cancer (HNC) clinical trials.

I provided assistance for organization of study materials, data collection, data entry, database development, and protocol maintenance.

Public Health Significance

My practicum experience relates to the Essential Service of Public Health ‘to diagnose and investigate health problems and health hazards in the community.’

As stated by Dr. Hutcheson, “Swallowing is the top functional priority rated by HNC patients before and after treatment. Pharyngeal dysphagia also significantly increases the risk of health problems in survivorship, including pneumonia and malnutrition. The common language provided by a dysphagia grade will enable interdisciplinary HNC clinicians to effectively study dysphagia according to gold-standard methods. DIGEST will offer a measure for investigations of toxicity profiles, dosimetric analysis of normal tissue complication probabilities, and might offer unique prognostic capabilities. Ultimately, refined dysphagia measurement in HNC trials will positively affect the quality of life and functioning in head and neck cancer survivorship.”

Special events

- Operationalized and organized a consensus exercise with international panel of swallow experts to ensure content validation of DIGEST
- Observed speech pathologists conduct modified barium swallow [MBS] studies at the Diagnostic Imaging Center at MDACC and trained on interpretation of MBS endpoints.

Lessons Learned

The practicum has made me flexible in conveying and receiving communication from a diverse workforce. I have learnt to value the contributions of all team members and balance individual and team goals.
Cancer Symptoms, a Public Health View

By: SAAD SAMARGANDY

Chemotherapy or radiation used to treat cancer is usually associated with many side effects. Minocycline, an antibiotic, is a drug that is thought to modify symptoms associated with cancer treatment. Phase III clinical trials are being conducted on Minocycline in various cancer patients by the department of Symptom Research.

My responsibilities were to:
- Complete the Human Subject Protection training and the Data Coordinator course.
- Participate in enrolling patients to various clinical trial protocols and take informed consent.
- Gain basic knowledge about cancer symptoms.

Public Health Significance

Public health services delivered by the Department of Symptom Research at MD Anderson Cancer Center are diverse. It includes:
- Clinical trials that are dedicated on finding new treatment modalities that might ameliorate the symptoms of cancer patients.
- Furthermore, the department is trying to develop new symptom-assessment techniques to better understand cancer symptoms.
- Inform and educate people about important health issues.
- Diagnose and investigate new symptoms related to cancer or cancer-associated treatments.
- Mobilize community partnerships by conducting multi-center clinical trials.
- Actively communicate with different local and international health agencies to improve overall cancer patient symptoms.
- Research the effectiveness of behavioral interventions designed to decrease pain.

Many behavioral and biological factors interact to cause cancer symptoms.

Holistic approach should be implemented to solve such a major public health issue.

Advice for Future Students

- Choose your practicum wisely. See what you want to pursue after you graduate and make your practicum a starting point for your future career.

Cancer Symptom Research is focused on identifying the mechanisms that contribute in developing the symptoms associated with cancer treated patients.
Preventing Congenital Syphilis

Practicum Highlights

- Reviewed state policies in regards to pregnancy and syphilis to develop a mock proposal for prenatal providers in Bexar County.
- Assisted with quality improvement of the pregnancy case management program.
- Observed training techniques used in governmental program management.

Public Health Significance

I had the pleasure of working with an extension of San Antonio Metropolitan Health District through the means of the 1115 Medicaid Waiver. The 1115 Medicaid Waiver funds were added to the city of San Antonio in order to improve quality and access to health care for underserved or underinsured populations. Through the course of my internship I learned about the devastating effects of congenital syphilis and encouraged high risk pregnant mothers to obtain an additional third trimester syphilis test. Mothers were reached on the phone and when they came into the HIV/STD clinic. Healthy Beats, the pregnancy case management program, would encourage the additional test by the means of a holistic approach. The program helped to meet the social needs of the mother to make sure a healthy pregnancy was the mother's primary concern. Social needs included but were not limited to transportation to appointments, access to healthy foods, assistance with Medicaid enrollment, and provider referrals.

Improving Prenatal Care to Prevent Congenital Syphilis in Bexar County

By: Katrina D. Williams

In 2012 there were approximately 25,000 births in Bexar County however there were 18 congenital syphilis cases as well. That is 18 babies whose lives were impacted before they even took their first breath. In 2012, Bexar County ranked 2nd in the state for the number of congenital syphilis cases with Harris County taking 1st place status. Congenital syphilis is 100% preventable if the mother is first educated about the public health issue at hand and has access to receiving three screening tests for syphilis.

Advice for Future Practicum Students

- When working in community public health you must be receptive to adaptations and be able to voice your opinion to make valuable recommendations.

Public Health Significance

In 2012 there were approximately 25,000 births in Bexar County however there were 18 congenital syphilis cases as well. That is 18 babies whose lives were impacted before they even took their first breath. In 2012, Bexar County ranked 2nd in the state for the number of congenital syphilis cases with Harris County taking 1st place status. Congenital syphilis is 100% preventable if the mother is first educated about the public health issue at hand and has access to receiving three screening tests for syphilis.

This picture shows a newborn with rhinitis which is often a developmental symptom of congenital syphilis.

Source: http://en.wikipedia.org/wiki/Congenital_syphilis#mediaviewer/File:The_face_of_a_newborn_infant_with_Congenital_Syphilis.tif

This picture shows a newborn with rhinitis which is often a developmental symptom of congenital syphilis.
Whole Exome Sequencing

My practicum is in the laboratory of Dr. Ariadne Letra, at the Center for Craniofacial Research, UT School of Dentistry. Our goal in the lab is to discover causal genes for craniofacial anomalies like cleft lip and/or palate.

Duties of the practicum
• To perform direct sequencing of gene variants identified through whole exome sequencing in patients with cleft palate
• To perform computational analysis to assess variant function

The Final Product reveals variants that are present in individuals with cleft palate and may be causal for the condition.

Advice for Future Practicum Students
This practicum is a great opportunity for someone who is interested to learn the basic laboratory procedures in DNA sequencing.

Public Health Significance

Cleft palate is a common craniofacial anomaly of public health concern. In the study we are doing whole exome sequencing of a family to find causal genes for cleft palate.

As this research is contributing to the evidence based medical practice, The Public Health Essential Service (PHES) that relates to this practicum is:

Research for new insights and innovative solutions to health problems

The picture shows an agarose gel plate as used for our variant validation experiments. Each band represents a patient sample and the position of the bands on the gel indicate (or not) the presence of gene variants in each patient.

Source of the photo:
http://www.sistemasgenomicos.com/investigacion_eng/pcontenido.php?niv=3&cod=1
Parenting, Stress, and Support Groups

Practicum Highlights

- I facilitated and actively participated in the focus groups and mock parent support groups.
- I was part of the stakeholders that contributed to the group physical activity policy at my host organization.

Advice for Future Practicum Students

- “Don’t just pass through your practicum; let your practicum pass through you.”
- Select a practicum that you are interested in, take initiatives and be very hands-on during your practicum.

Furthering Understanding of Parenting, Stress, and Support Groups

By: Rafeek Yusuf

Parents interested in learning more about the benefits of parent support groups in the community were encouraged to participate in this project – comprising research and community components.

Focus groups were conducted to gather valuable suggestions and feedback from parents about parenting and associated challenges within the Houston area.

Then mock parent support groups were conducted to assess parents’ intentions to attend parent support groups in the future.

Public Health Significance

Parenting is one of the common and important health issues in our society. Evidence-based studies have shown effective parenting to be an effective solution for curbing delinquencies in children and adolescents.

The Public Health Essential Services (PHES) that most closely relate to my practicum experience are: (1) informing, educating, and empowering people about health issues; and (2) researching for new insights and innovative solutions to health problems.

My project contributes to public health by providing parent-led interventions to parent identified stresses and challenges of parenting.

In addition, by encouraging community based group physical activities, my host organization contributes to public health.
Salmonellosis Surveillance

Data analysis of Salmonellosis Cases within Harris County

By: Weilin Zhou

Epidemiologists at the Harris County Public Health & Environmental Services (HCPHES) perform routine surveillance of notifiable conditions for residents within Harris County.

Salmonellosis is one of the food-borne diseases that is reportable. Epidemiologists from local health department has to fill out a long form of questionnaire related to food and animal contact.

The data from questionnaire will be reported to Texas Health Department and CDC. All these information will help health department to identify risk factors that are related to outbreak.

My duty as an intern included data entry/clean and investigation of the risk factors related to food and animal contact that might be closely associated with Salmonellosis in Harris County in 2012-2013.

Public Health Significance

Epidemiologic surveillance is extremely important to public health. Without diseases surveillance we could not identify clusters and implement prevention measures.

The Essential Public Health Services addressed in my practicum site include:

- Monitoring emerging and reemerging health status
- diagnosing and investigating disease outbreaks;
- Inform, educate and empower people about health issues;
- Enforce laws and regulations that protect health and ensure safety.

Local health departments are an important part of our health system, especially when preparing and controlling disease outbreaks. They provide updated information to the general public, schools, and medical community, and reporting disease activities. They also make recommendations and/or implement any public health interventions if needed.

Advice for Future Practicum Students

- A practicum opportunity in a local department will be a great learning experience for a future epidemiologist.
- Move around, talk to people, and learn from them.
- Communication and leadership skills are important for an epidemiologist working at a local health department.

Special Events during My Practicum

- Attended a hospital visit with the HCPHES epidemiologists to lecture on emergency preparedness and response to Ebola Virus Diseases.
- Attended regional meeting about latest infectious diseases cases in surrounding regions.
- Worked on a project related to Salmonella Surveillance data in Harris County.

Harris County is the third most populous county in the United States, with a population of 4.09 million residents.

Source: www.hcphes.org
For more information regarding The University of Texas School of Public Health, Office of Public Health Practice and the practicum program, please visit:

https://sph.uth.tmc.edu/practicum/