Public Health Practice

Stories from the Field
Student Practicum Experiences
Fall 2010
The University of Texas School of Public Health
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 third-edition e-magazine showcases student practicum experiences throughout the Fall 2010 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
Servings per e-Magazine: 52

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Cause for Pacemakers in Transplanted Hearts

Does long-term use of amiodarone before transplant predict pacemaker use in a transplanted heart?

By: Anirban Bhattacharyya

Heart Failure is a serious ailment in the US affecting 5 million people annually. Nearly 2200 of them get a heart transplant every year, costing up to 800,000 dollars per transplant. Unfortunately 35% of registered patients don’t get a transplant due to organ shortage. Post transplant, 17-25% report serious complications of native rhythm necessitating pacemaker implantation. Anti-arrhythmic drug, amiodarone, widely used in this population, is implicated as a potential cause.

At Texas Heart Institute, a case-control study was designed to retrospectively analyze association of amiodarone with pacemaker use within 90 days of transplant. My role involves data collection, analysis and manuscript writing, which is currently in development.

Data collected for 120 patients, including controls, did not reveal a statistically significant association with amiodarone. Further exploratory analysis is needed to investigate cause.

The Public Health Connection

Our study was designed to monitor the incidence rates of various clinical variables, including incidence of pacemaker implantation. Through our research we aimed at diagnosing and investigating the etiology, the findings of which would be communicated through a scientific journal article.

The Texas Heart Institute (THI) at St. Luke’s Episcopal Hospital’s remarkable clinical efforts are complemented in the community through St. Luke’s Episcopal Health Charities, reaching out to more than 13 million people in underserved neighborhoods. Through the efforts of SLEHC and its community partners, a large and diverse population seeks medical care at THI. Our population derived from the transplant database at THI was very diverse and is one of the larger studies done that aimed at studying post transplant pacemaker usage.

Identifying etiologic factors that could potentially affect up to half of all heart transplant recipients will help us formulate preventive strategies and also prioritize our limited resources.

What I learned:

- Design and analysis plans of retrospective studies need to be optimized to availability of data.
- Incidence of pacemaker use has gone up in recent years.
- Early rhythm disturbances (not all serious) occur in up to 50% of all heart transplant recipients.

“In research, identifying the problem is often as big a challenge as finding the solution.”

Permanent Pacemaker, with leads attached.

Source: Wikimedia Commons
Infection Control at Memorial Hermann Texas Medical Center and UT Physicians Clinics

By: Rachel Gamble

My practicum consisted of two parts: a hands-on pseudo-outbreak investigation at UT Physicians Clinic and an observational piece at Memorial Hermann Hospital (MHH) in the Texas Medical Center. As part of my full time job, I was asked to investigate an outbreak in a UT Physicians Clinic. I consulted Dr. Luis Ostrosky, Medical Director for Epidemiology at Memorial Hermann Texas Medical Center, for assistance. This interaction led to the unique creation of my practicum experience.

Dr. Ostrosky provided guidance on investigating what was ultimately deemed to be a pseudo-outbreak of Acinetobacter baumannii/calcoaceticus at a UT Physicians clinic. The investigation consisted of doing a clinic survey to identify areas where potential sources for contamination existed along with breaks in disinfection and/or sterilization, reviewing de-identified laboratory results from the 6 patients affected, and making recommendations to the clinic to avoid future problems.

The observational part of my practicum consisted of shadowing infection control practitioners at MHH. This experience allowed me to gain an overall understanding of how an infection control program works throughout the hospital in areas ranging from the clinic setting, surgical setting, inpatient setting and intensive care units.

Public Health Significance

This practicum dealt mostly with the public health essential service of monitoring health status of patients to identify community (hospital) health problems.

The main goal of this project was to investigate an active outbreak in a clinic, provide recommendations for improvement, and experience the full scope of infection control practices in a major hospital.

The final product of my practicum experience was a paper detailing the pseudo-outbreak that occurred in the UT Physicians Clinic. Recommendations from this paper were implemented in the clinic and to date the clinic has not experienced another outbreak or pseudo-outbreak.
Preparation of a biological laboratory health and safety standard

By: Nnamdi Nnoli

My practicum assignment was done at the Center for Infectious Diseases at the UT School of Public Health. I worked with the team of researchers who were involved in performing procedures involving handling of human biological samples for analysis. Due to my interest in environmental health and safety, I was specifically involved in maintaining standard operating procedure in the laboratory to ensure compliance with local, state, national, and international policies regulating laboratories. Learning about laboratory safety and putting it into practice provided me with the necessary preparation to assume a health and safety professional responsibility in the laboratory. This learning would be of great importance to me in my practice of environmental health and safety after leaving my practicum place.

Public Health Significance

Awareness of the health and safety procedures in the laboratory is of paramount importance to ensuring the health and well-being of workers in the laboratory. Through my practicum experience I learned the need for, and how to enforce, laws and regulations necessary to protect human health and ensure safety of workers in a laboratory setting. This knowledge will be very essential in the promotion of the general health and well being of workers not only in the laboratory, but also in every work environment. Laboratory employees and researchers are urged to become familiar with the laboratory standards and to utilize the training and information that is available to provide a safe laboratory. Periodic inspections are important in the laboratory environment, not only to check compliance with EPA and OSHA safety regulations, but to ensure the public good of workers. Every personnel in the laboratory must be familiar with the emergency preparedness plan.

Fall 2010, Nnamdi Nnoli. Center for Infectious Diseases. Biological laboratory safety procedures

During the course of my practicum, I was trained on basic laboratory and clinical safety involved in shipping infectious substances and blood borne pathogens. I became familiar with the local, state, and national policies regulating laboratories and emergency preparedness.

“Our lives begin to end the day we stop being careful about agents in the environment that may affect health.”

Dreamstime.com
Ectopic ACTH-dependent Cushing’s Syndrome

Experience Update of Ectopic ACTH dependent Cushing’s syndrome (CS) at MD Anderson Cancer Center

By: Shamim Ejaz

INTRODUCTION

Ectopic ACTH secretion (EAS) is associated with variety of tumors. Data about this syndrome is mainly derived from very few case series. There is retrospective evidence of increased mortality and morbidity associated with this syndrome; however, prospective evidence is still lacking. We reviewed our experience with this syndrome and summarized the clinical data and outcomes of 43 identified cases.

APPROACH

A retrospective review of ACTH-dependent ectopic CS at a comprehensive cancer center from 1979-2009 was done. 43 Cases were identified through an institutional tumor registry. ACTH-dependent ectopic CS was defined as: CS with tumors known to produce ACTH, CS with positive ACTH staining on non-pituitary tumors, CS with lack of localization on inferior petrosal sinuses sampling (IPSS).

FINDINGS

Patients median age at diagnosis was 48 years (19-75), 17 were males and 26 were females, initial presenting complaints were weight gain or loss, new onset/worsening of hypertension, new onset/worsening of hyperglycemia and purple skin marks, called striae, on the skin of the abdomen, thighs and breasts. Figure 1

Tumors associated with ACTH production: Figure 2 summarizes ACTH source in all 43 cases.

Duration to localization: The time range for ACTH localization after diagnosis was 0-118 months. Patients were divided as follows:

Localization at time of diagnosis (within 1 month): 32 patients (74.4%); delayed diagnosis (more than 1 month): 7 patients (16.3%); 4 bronchial carcinoma; 1 thymic carcinoma; 1 bladder NET(neuroendocrine tumor); and 1 metastatic NET of unknown primary. Median time for localization was 22 months (range 6-110). Occult source: 4 patients. Follow-up range from 6-118 months.


Prognosis: Death was documented in 27 patients and the median overall survival was 32.16 months. There was no significant difference in median overall survival between males (32.16) and females (32.36) (p-value 0.714). Kaplan Meyer curve for overall survival in all patients is illustrated in Figure 3

CONCLUSION

Varieties of NETs are associated with EAS. There are multiple diagnostic and therapeutic challenges in these patients. The source of ACTH may not be obvious in about 25% of cases. There is a need for a prospective study to determine the true prevalence and impact of cortisol overproduction on the course of underlying malignancies.

Public Health Significance

There is retrospective evidence of increased mortality and morbidity associated with this syndrome. Extensive study was needed to be done in a cancer setting to understand the true impact of this syndrome on cancer patients. Knowing various complications of it and expectant management can decrease the frequency of multiple admissions that would be helpful in reducing the health care cost.

Figure 1

Figure 2

Figure 3
Antiretroviral Therapy in Youth

SIMPLIFICATION OF ANTIRETROVIRAL THERAPY IN HIV-INFECTED YOUTH
BY: COSMINA GINGARAS

My project was part of a larger initiative to investigate whether a simplified regimen (one pill a day) would help improve youth adherence. Less than perfect adherence jeopardizes future treatment options for these young people, which may prematurely end their lives. Preliminary data from the Thomas Street Clinic showed that 47% of adolescents failed their once daily, simplified regimen. My duty was to uncover the predictors of virological failure in these youth, I used descriptive statistics to characterize the population and univariable and multivariable logistic modeling to identify potential predictors of virologic failure.

The conclusions of my research were that youth initiated on a once daily regimen had better preserved immunity and suppressed HIV better. The predictors of virologic failure that I identified will be further confirmed in an expansion of this study.

Special highlights during your practicum

- Excellent opportunity to apply and enhance classroom knowledge
- Great mentorship and guidance from my advisors

Public Health Significance

The Centers for Disease Control estimated that, at the end of 2006, 56,500 youth aged 13-24 were living with HIV infection or AIDS in the United States. According to the Texas Department of State Health Services, 7,297 adolescents were living with HIV in 2008 in Texas. Besides efforts to prevent further transmission of disease, an important focus in youth HIV medicine is ensuring appropriate adherence to antiretroviral medication.

Thomas Street Health Center is an urban clinic run by the Harris County Hospital District, dedicated to providing medical and psychological care to indigent HIV-infected people. The Thomas Street Clinic provides many public health services. The clinic staff diagnoses and investigates HIV/AIDS and related health problems. They also educate patients about the course of disease, provide psychiatric counseling to help them cope with the psychological burden of disease, recommend antiretroviral therapy and form a close, trust-based relationship with their patients. The doctors at the clinic are also interested in research, in finding or testing innovative solutions to help reduce the burden of HIV/AIDS in the Harris County area.

"... halting the spread of AIDS is not only a Millennium Development Goal in itself; it is a prerequisite for reaching most of the others." (Kofi Annan, 2005)
The Houston Medical Monitoring Project (HMMP) uses a puzzle logo to reflect the goal and objectives of the project. The idea is that HMMP is putting together a puzzle whose pieces include, access to care, quality of life, prevention services, etc.

The piece that is missing is “Y-O-U” which could either be the provider or the patient.

Development of Facility Sampling Frame (FSF) – Houston Medical Monitoring project (HMMP)

By: Cepeda Grimes

The Houston Medical Monitoring Project (HMMP) is a special surveillance project, sponsored by the Center of Disease Control and Prevention (CDC). The project is designed to produce local representative data of met and unmet needs of people living with HIV/AIDS (PLWHA) who are receiving care in Harris County.

Thus, the development of a representative sample of HIV/AIDS care providers is essential in achieving the project goals and objects.

Public Health Significance

HMMP aims to provide a deeper understanding of the health-related experiences and needs of the people living with HIV/AIDS who are receiving care in Harris County.

Public Health Essentials:

Mobilization: HMMP reaches the objective of FSF through the partnerships of local health care providers.

Evaluate: The success of the HMMP depends on the providers and the patients selected to participate. Selected participants have a unique chance to help guide decisions that could improve the quality of care and life for people living with HIV/AIDS.

HMMP provides valuable estimates of health care utilization, quality of care, severity of need and effectiveness of prevention messages. HMMP data may help estimate resources needed for treatment and services for HIV-infected persons.

Special events/ duties during your practicum

- Development of Facility Sampling Frame
- Management of HIV/AIDS care providers database
- Coordination of HMMP community outreach events
- Observation and evaluation of field interviews

“Development of a Representative Sample of HIV/AIDS Care Providers is a sine qua non to determining met and unmet needs of people living with HIV/AIDS”

~ Cepeda Grimes

HMMP Community Outreach Event held at the Legacy Community Health Center.

Pictured from left: James Gomez (Project Investigator) and Cepeda Grimes (Project Intern).
Safety of Pioglitazone in Hematoma Resolution in Intra-Cerebral Hemorrhage Patients (SHRINC)

By: Hari Kishan Indupuru

Stroke is the third leading cause of death in the Western world. With an annual prevalence of 795,000 stroke accounted for $68.9 million in healthcare costs in 2009. Intra-cerebral hemorrhage accounts for about 10-15% of all strokes. Yet there is no effective treatment available for victims of intra-cerebral hemorrhage. The Neurology department at UT Medical School identified the need for a multi-faceted approach to treat and prevent intra-cerebral hemorrhage and the resulting disability. The SHRINC trial is an approach to identify the safe dose of Pioglitazone in hematoma resolution in acute stage of treatment.

My responsibilities in the study are patient recruitment, data collection, data entry, maintenance of protocol and codebook production. The final product for the practicum is the MOP I am developing for a future multi-center trial.

Public Health Significance

The SHRINC study has been developed in partnership with a pharmaceutical company. The primary objective of the research is to identify a safe dose of Pioglitazone in acute treatment of stroke. The study subjects and the community at large will be kept informed about the findings of the study through publications in scientific journals.

The UT medical school, in collaboration with the Memorial Herman Hospital, works relentlessly in improving healthcare for the people of Southeast Texas, by way of diagnosing and identifying health issues in the community. Forming partnerships to address these health issues, by way of innovative research and preventive programs, links people to quick access to life-saving care by the establishment of the region’s largest stroke center.
“The Austin School Health Advisory Council (SHAC) works with the district to help school communities support good health and academic achievement.”

www.austinisd.org/schools/shac/index.phtml

Fitness: Potential Missing Link in Assessing Academic Achievement
By: Jud Janak

Tracy Lunoff, M. Ed., the health coordinator for Austin Independent School District (AISD), asked that I analyze the relationship between the districts standardized test scores (TAKS) and fitness scores (FITNESSGRAM®) to help the Austin SHAC better serve their goal of advancing student academics through health promotion.

I presented a final report to my practicum site analyzing the school districts overall health and the relationship between fitness and academics.

Major findings from my analysis conclude that overall fitness is significantly associated with an increase in the percent of male and female students that meet the TAKS Math Standard, and the percent of female students that meet the TAKS Reading Standard. The relationship appears especially important for economically disadvantaged and older students.

Public Health Significance

The goal of my practicum experience was to research and evaluate the relationship between AISD student’s overall fitness and academic achievement. The information I provided will be used to inform, educate, and empower the Austin SHAC, which is comprised of various stakeholders within the Austin community, to make decisions regarding health and education services.

The AISD Office of Educational Support Services works with the SHAC to promote student health and education through community involvement, nutrition, physical activity, and a variety of other outlets. My research and evaluation will help the Office of Educational Support Services reach out to the stakeholders in the community that comprise the Austin SHAC to make informed decisions about student health and academic performance.
Breast Cancer: is it Still a Winner?

Role of Cyclooxygenase-2 in early stage human breast cancer

By: Ashutosh K. Lodhi

By 2010, the majority of approximately 1.5 million annual new cases of breast cancer will be diagnosed in women in countries with limited resources. Public health approaches to medical problems emphasize the importance of practical, limited toxicity and very inexpensive interventions.


Early detection of breast cancer using mammography, while effective, is a high-technology, expensive approach. Public health perspectives thus suggest that many current “standard” approaches to breast cancer in western countries cannot help the majority of women in the world. Consideration of various tumor markers, efficacy and cost-efficacy data thus appeared warranted in order to develop approaches and targeted, as well as tailored, therapies to effectively prevent, diagnose or treat it.

My role during this practicum under the mentorship of Dr. Anthony Lucci, the P.I. of this study, and Dr. Shreel V. Sharma, my faculty advisor, was to prospectively collect the data on the newly enrolled patients, discuss the issues with the research data coordinator and mentors, periodically analyze to seek for any significant findings, and understand its public health implications.

Public Health Significance

The core values we follow and the essential public health services I learned through my experience were to:

1. **Evaluate** effectiveness and quality of personal health services and analyze our research findings;
2. **Inform, educate, and empower** people about health issues;
3. **Link** people to needed personal health services and assure the provision of health care when otherwise unavailable;
4. **Research** for new insights and innovative solutions to health problems.

MD Anderson Cancer center is the premier cancer center in the world, based on the excellence of its people, research-driven patient care and science. MD Anderson is Making Cancer History. With more than 90,000 people seeking the high-quality care here every year, this institute addresses one of the biggest public health terror,s breast cancer, which can be prevented by primary prevention and research. Thus, it has been a very good practicum opportunity. Living with the core values of caring, integrity and discovery, every department shows teamwork and inclusiveness; helps practice our values by creating environment of belief and assists each patient in identifying the problems they face every day.

“People won’t remember what you did. People won’t remember what you said. But people will remember how you made them feel.” -- Neale Donald Walsch
Graft Versus Host Disease

Murine Model of Ocular Graft Versus Host Disease

By: Janhavi Modak

My practicum experience involved working on the murine model of graft versus host disease (GVHD) at the UT MD Anderson Cancer Center. MHC matched transplantation was performed using AKR/J as recipient and B10 as donor mice. The mice were graded every other day using the murine GVHD scoring system. Ocular findings were observed in mice including the histopathology data and the trend of tear dysfunction. These findings were correlated to the donor and the recipient characteristics.

My duties involved conducting a literature review, development of the study protocol, data collection (GVHD grading, external ocular photography, Schirmer’s tests), data management and statistical analysis.

Results: In the murine model of GVHD, ocular function correlates with the GVHD severity. My findings would be put forth in a poster

• I learned to apply the principles of epidemiology and biostatistics in clinical research.
• I gained valuable laboratory experience and underwent training in microsurgical techniques to handle mice tissue.

Public Health Significance

My practicum experience involved working on a pilot research project. The research would help gain new insights and formulate innovative solutions to health problems like graft versus host disease (GVHD).

Ocular GVHD is a common condition, affecting approximately 80% of patients after allogeneic hematopoietic stem cell transplantation. Our research will help prevent the morbidity associated with ocular GVHD and will provide therapeutic interventions to increase the quality of life of patients.

The department of Ophthalmology at the UT MD Anderson Cancer Center follows the core values of Caring, Integrity and Discovery. A diverse group of individuals comes together to provide research driven patient care, seek new knowledge about cancer and explore ways to prevent cancer and the associated comorbidities.

“A novel experience which helped me gain insight into research”  

Weighing the mouse during GVHD grading.
**Staphylococcus aureus carriage study**

**By: Victoria Nakimbugwe**

Over the fall, I worked in the University of Texas School of Public Health’s Center for Infectious Disease lab. For my practicum, I worked with Dr. Eric L Brown processing biospecimens for a study he is doing on carriage of the microbe, *Staphylococcus aureus*, in Houston.

Methicillin-resistant *Staph. aureus* is a growing problem which urgent needs to be characterized in the community.

**Public Health Significance**

This project closely relates to at least half of the Public Health Essential Service(s) (PHES):

1. Situating the study in the community allows for timely identification of the problem.

2. Similarly, testing individuals in the community will characterize the dangers posed by MRSA to the Houston community.

3. Obtaining estimates of the prevalence facilitates communication of concise, relevant information to the public.

4. Collaborating with different clinics has already created partnerships aimed at identifying MRSA carriage and will be essential to implementing solutions in future.

10. This project embodies this last PHE, with a view to garner insight into the carriage of MRSA in Houston.

In this study, the prevalence of this microbe will be determined, among other things. The investigators take nasal swabs from persons attending ambulant health care facilities and process these to determine carriage status and, for carriers, prevalence of drug resistant *Staph. aureus*.

I was primarily involved in specimen processing and will create a lab protocol/manual to guide subsequent learners in doing the same, as this study is ongoing.

“Resistant bacterial infections are not only a public health problem; they have national and global security implications as well.”

- Infectious Diseases Society of America
HIV/AIDS Surveillance Program: The Impact on HIV/AIDS Infection in Houston, Texas

Author: Ifeoma C. Ndubisi

I completed my practicum assignment at the City of Houston Department of Health and Human Services. I worked with a team monitoring the HIV/AIDS and STD epidemics in Texas, through the routine collection of HIV/AIDS and STD surveillance data. This information is used to provide timely and accurate data needed to develop quality prevention and treatment services. The project team is also involved in a behavioral surveillance program in Houston funded by the CDC. The National HIV Behavioral Surveillance System was established to monitor behaviors that put people at risk for HIV infection and aims to determine the frequency and pattern of sexual and drug use risk behaviors among people at risk of HIV infection.

As part of my duties in the project, I assisted in entering the collected data into the e-Hars database. I also participated in the assessment of groups at risk of HIV/AIDS infection, for their exposure to and utilization of HIV testing and quality prevention services that are available to them.

This is an ongoing program that aims to identify the possible risk factors among high risk groups, and the information will help in the development of prevention services that are tailored to meet the individual needs of people at risk, and subsequently help to reduce the prevalence and incidence of HIV/AIDS in Houston and Texas as a whole.

Public Health Significance

The Centers for Disease control and Prevention has defined Human Immunodeficiency Virus (HIV), as a retrovirus which attacks the human immune system by killing the helper T cells which help the body to fight infections, and Acquired Immune Deficiency Syndrome (AIDS) results from the severe suppression of the immune system following an attack by the virus. The estimated rate of HIV incidence in Houston is about 43.6 cases per 100,000 people and this figure is almost twice the national average of 22.8 cases per 100,000 people. This alarming figure highlights the urgent need to develop effective measures that will help to curb the menace of the HIV/AIDS scourge. This can be achieved by instituting quality prevention services that prevent further transmission of the disease especially among people with high risk behaviors.

Regarding essential services of public health, this is an ongoing project in which the members of the team carry out research for new insights and innovative solutions to the health problems caused by HIV and AIDS. They also assist in the investigation of high risk behaviors associated with the development and transmission of HIV/AIDS. The results obtained are extremely helpful in informing and educating patients on the mechanisms of transmission of the disease, as well as the treatment options available to them. This will help to prevent further transmission to uninfected people and ultimately lead to a decrease in the incidence rate of HIV and AIDS.
Acute Necrotizing Pneumonia

A 10-year case review
By: Anupam Pande

I garnered pertinent information regarding all cases of proven pneumococcal pneumonia over the last 10 years at the Michael E. DeBakey Veteran Affairs Medical Center. Findings of necrosis were reviewed in all cases with the help of two radiologists independently. Necrosis was correlated with disease severity, bacteremia, results of serotyping studies and many other parameters.

My duties involved formulation of the research protocol, data management and analysis. My research findings were presented as a scientific abstract for a poster presentation.

Results: Necrotizing complications are much more common than were previously thought, and many cases were missed on preliminary readings of X-rays and CT scans. Also, there was no correlation with bacteremia, though the disease tended to be more severe in those with necrosis. Serotype 3 was most commonly implicated.

- I gained laboratory experience by collaborating with microbiologists who taught me to culture and serotype pneumococci.
- I trained with radiologists to identify and diagnose pneumonia and its complications of pneumonia.

Public Health Significance

My research helps to gain new insights into and formulate innovative solutions to health problems.

By creating awareness among healthcare providers about necrotizing complications of pneumonia, I wish that my research helps identify cases earlier so that they can be treated and rehabilitated accordingly, with the ultimate aim of preventing morbidity and mortality from this life-threatening condition.

The Department of Infectious Diseases at the Michael E. DeBakey Veteran Affairs Medical Center is committed to the health of veterans in the community and conducts state-of-the-art research to gain novel insights into infections commonly affecting veterans.

“The VA offers the best of both clinical and laboratory research.”

“The final step of serotyping pneumococci: The Quellung reaction as seen under the microscope (100X).
Discovering concentrations of pharmaceuticals in Houston water

By: Komal Shah

This semester (Fall 2010), with the help of chemists at the Environmental Protection Agency (EPA), have started a project where I test water in the Houston water system for pharmaceutical concentrations. This project is not completely done; it should be completed by Jan. 2011.

The topic of pharmaceuticals in water is an important public health issue because with the rising level of pharmaceutical consumption, more and more people are indirectly being exposed to hormones, antibiotics, neurological drugs, etc from merely drinking water.

At the EPA, I am using a new method of detecting pharmaceuticals in water (QTOF) in order to determine if there are significant concentrations in Houston water. I started out by looking at standards and doing research and am now in the process of collecting samples.

Public Health Significance

The Environmental Protection Agency in general, is dedicated to protect the environment of the United States. In Region 6 (where I work), the lab does many projects dealing with air, water, and soil and organic or inorganic pollutants. They test the contamination and enforce restrictions based off of rules.

The contribution that I am giving to the Region 6 lab is incorporating public health to the reason behind testing pharmaceutical contamination. Many people do not realize how much pharmaceuticals are flushed into the water system. Also, wastewater and treatment centers do not have a way to eliminate pharmaceuticals in water.

With me testing the water system in Houston, it will contribute to public health by monitoring and investigating the burden of pharmaceuticals in our environment. It will also help develop and continue using the new method of detecting pharmaceuticals. Lastly, my practicum will help provide general research on a new area of interest these days with the growing number of pharmaceutical intake in society these days.

“A number of aquatic and amphibian species are being exposed to small amounts of everything from Prozac to perfume to birth control pills that make their way into U.S. rivers and streams.” - Marsha Walton; CNN
Contributing a Small Part to a Larger Project: The NCS

By: Lisa Eastcott

The National Children’s Study is an ongoing longitudinal study following children from before birth until their 21st birthday. The goal is to track a variety of things such as environmental and genetic effects that affect the growth and development of children. The project in its entirety is in the area of Maternal and Child Health.

During my practicum I worked on finding background information on topics such as recruiting immigrant women that could be of use when they begin to recruit. I completed a variety of tasks such as making contacts and performing observations at WIC clinics, completing literature reviews on immigrant women and cataloging recruitment materials. My final project involved informing my preceptor on my findings from all my duties in the form of conversational and written material.

Public Health Significance

My practicum was related to multiple of the essential public health services. The ones that it most represents were diagnose and investigate, assure a competent workplace and research. From my experience we diagnosed and investigated health problems such as the environmental factors that the NCS is researching. I also had experience assuring a competent public health workplace as all tasks and information exchanged was professional and public health based.

Another task with ensuring a competent workplace was monitoring income recruitment materials for future use. Research was the biggest public health service that I had experience with as almost all my tasks were related to researching literature to find ways to recruit immigrant women into research, utilizing outside resources and including fathers into research. Since I was helping to develop data for future research projects it comprised the majority of my time.

“The solution to adult problems tomorrow depends on large measure upon how our children grow up today.”
Margaret Mead
Preventing and Reversing Heart Disease

Century Health Study - For a lean and healthy world.
By: Hemang A. Vaniya

I had an opportunity to be part of a landmark clinical trial i.e. Century Health Study, that may benefit society by proving a more efficient, cost-effective way of diagnosing, preventing, and treating coronary heart disease (CAD).

The goal is to attain a century of well being.

An approach of supporting healthy lifestyle in addition to usual medication is applied rather than standard infrequent instructions on prevention.

My responsibilities included screening to recruit new patients, conducting exercise stress test, entering & analyzing diet sheet material & clinical parameters, and developing novel ways to recruit new patients.

“Preventing an unnecessary tragedy – that is what we aim at”

Public Health Significance

There is a heart attack every 25 seconds and an American dies every 36 seconds because of either a stroke or a heart attack. This is a huge burden on health care system.

We educate our patients about their heart disease and empower them to follow healthy lifestyle to reverse it.

This strategy may prove to be most powerful and economic way of preventing and treating a coronary heart disease.

Also, we use PET scans as an efficient, cost effective and innovative way of diagnosing CAD.

Visit www.centuryhealthstudy.org for more information.
Working at HCPHES allowed me to…

- Work alongside CDC team during the Hepatitis B outbreak
- Learn and work with spatial disease mapping software
- Analyze disease cases in county using ArcGIS

“During an outbreak investigation the primary goal is to remove the pump handle and prevent more cases”

**Public Health Significance**

The most essential public health service that served as the baseline is the monitoring of disease status. At HCPHES, the team used different surveillance techniques to monitor outbreaks of disease. Some monitoring and surveillance work included: collecting reportable disease information from community health professionals who submit information on possible disease outbreaks and assist local communities with preparedness planning. Disease mapping is essential for the surveillance and monitoring of the publics’ health. It allows epidemiologists to better track and maintain cases on a continuous basis which can ultimately be crucial in finding the cause of the outbreak. GIS mapping is also a valuable tool for responding to outbreaks. This will help epidemiologists better understand and identify disease trends and even possibly help to predict future outbreaks.

**Disease Surveillance and Spatial Analysis**

By: Ana Zangeneh

During the Hepatitis B outbreak, several days were spent making phone calls to make appointments for serologic testing to find additional cases. Data entry and data cleaning was done on surveillance data (Hepatitis B and West Nile Virus cases) using the INSIGHT database. After the arriving team of CDC during the Hep B outbreak, I helped with compiling the line list. Some surveillance data was used for analysis: Data from West Nile Virus cases in Harris County was used for analysis using ArcGIS. I geocoded addresses and mapped cases based on their spatial locations. Geographic cluster analysis was used to identify the locations of statistically significant hot spots, cold spots, and/or spatial outliers. I was able to separate cases based on extreme high, high low or low values. A map depicting cases with West Nile Virus in Harris County shown above is one that I created.
SBIRT is Effective

Alcohol abuse is one of the leading causes of trauma.

SBIRT is a program used in healthcare settings to intervene in problem drinking.

Source of graphic: Microsoft Clip Art

Translating Screening, Brief Interventions and Referral to Treatment (SBIRT) to Trauma Coordinators. By: Folake Adedeji

I spent the Fall Semester of 2010 working for the Research into Action Group (RIA), a project under the Institute for Health Policy at the University of Texas, School of Public Health Houston.

Over the last two years, we have been involved in knowledge translation efforts to different targeted audiences. The SBIRT project is one of those efforts. This effort has led to the production of a standardized tool (the SBIRT Booklet, CD and power point presentation) created by RIA staff on SBIRT in ERs.

Our current goal is to publish an article on our SBIRT translation efforts. I am part of the writing group for the article publication. At my practicum site, I reviewed relevant literature that will be used to provide research context for our SBIRT article. I also analyzed key informant feedback on some of our distributed materials.

Right now, we are still analyzing the results of the translation effort. An article will be published soon.

Public Health Significance

SBIRT is a program that has been proven to work effectively in getting substance abusers to come to a realization of their risky behavior. The aim of the program is to gently guide them into the much needed treatment they need for their disorder.

It has also been demonstrated that SBIRT saves money as well as lives.

However despite the effectiveness of the program, its uptake is not wide spread due to several barriers. Our task is to address these barriers by providing evidence based resources to facilitate the uptake of the program by Texas Trauma Centers mostly levels 3 and 4s.

This task would serve to fulfill the assurance of a competent public health and personal healthcare workforce, one of the essential services of public health.

• Performed literature reviews of the citations to be used in the SBIRT publication.

• Coded and analyzed data from SBIRT knowledge translation effort.

• Currently writing the methods section for the SBIRT publication.

“Effective programs like SBIRT are useless if they are not translated into the hands of those who need to use them.”

A paramedic trying to get a drunk driver into the ER as quickly as possible. Once the patient is stabilized, he/she will be counseled by an ER personnel trained in SBIRT administration and referred for treatment for substance abuse.

Source of graphic: Microsoft Clip Art
Assessing, Educating, and Implementing Infection Control Standards 
In Zimbabwe, Africa

By: Ashley Lowery

Infection Control in healthcare settings exemplifies the many aspects of public health. As an infection control practitioner in Houston, Texas, I am knowledgeable of the standards and guidelines that constitute an infection control program.

Bethany Ministries in Africa was the organization that presented the opportunity for me to do a needs assessment, educational in-serving, and implementation of new procedures at a private hospital in Bulawayo, Zimbabwe, Africa.

Public Health Significance

My practicum experience relates to the Essential Services of Public Health in that I helped develop policies and plans that support individual and community health efforts.

After completing a needs assessment with the infection control nurse (Sister Garra), I was able to educate the head nursing staff at the hospital about the importance of following infection control guidelines. At that time, I implemented three procedures (with policies).

1. Dating IV dressing changes to limit the number of infections
2. Labeling the first drug to expire on all crash carts
3. Sharps safety- to prevent employee needle sticks

As a country with limited resources, this project challenged me to creatively institute new programs according to American infection control standards without a budget.

Head Matrons (aka charge nurses) created stickers with the first drug to expire written on them. This sticker was placed on every crash cart in the facility. This final product of my efforts (one of several) at Mater Dei Hospital was well received, as expired medications will be discarded prior to any medical errors.

Bethany Ministries in Africa also contributes widely to public health in Zimbabwe. Every year, this organization donates large containers of medical supplies to hospitals all around the country. These donations range from hospital beds and anesthesia machines, to baby diapers. Bethany Ministries is comprised of healthcare workers who volunteer to provide supplies and education.

Infection Control is a global issue. Although resources vary, education is universal.
Improving Value of Cancer Treatment

Testing Michael Porter’s Value Proposition in Esophageal Cancer

By: Caitlin C. Murphy

MD Anderson’s newly created Institute for Cancer Care Excellence (ICCE) seeks to deliver improved value to cancer patients across the entire treatment cycle—from prevention to survivorship. ICCE has several projects underway that examine the relationship between patient-centered outcomes and cost of care delivery. Most central to my practicum experience was Harvard economist Michael Porter’s “value proposition.” Porter theorizes that hospitals must compete on the value they deliver to their patients, defined as outcome divided by cost. ICCE has committed to test Porter’s proposition across all cancer disease sites at MD Anderson, and my practicum focused on esophageal cancer. The outcomes we examined included 2- and 5-year disease free survival, surgical complications, duration of treatment, and appropriateness of treatment to tumor type. These outcomes will ultimately be analyzed using cost data.

Public Health Significance

From a public health perspective, ICCE works to meet the essential public health service of evaluating effectiveness, accessibility, and quality of personal and population-based health services. MD Anderson has long been on the forefront of cancer patient care and research; the creation of ICCE raises the bar on how that care is delivered.

Informed by Porter’s value proposition, the Institute has developed a model for the next generation of a health care delivery system for cancer focused on creating evidence-based systems that deliver safe, timely, effective, equitable and patient-centered care at a reasonable cost. My practicum experience was an opportunity to test this model in esophageal cancer patients.

ICCE’s work reflects MD Anderson’s dedication to clinical and research programs, and further demonstrates the institution’s commitment to report clinical outcomes, enhance patient safety, and improve quality.
Public Health Significance

The Public Health Essential Services (PHES) that most closely related to this practicum includes PHES 1, 2, 3 and 7 which are Monitor, Diagnose and investigate, Inform, educate, and empower, and Link respectively.

Strawberry Clinic is a Community Health Center (CHC) that provides health care services to underserved/under insured population. The center strives to identify and meet the needs of the community it serves especially in relationship to its health. The CHC identified the high incidence of obesity amongst its population and its effects on its health.

A monthly group weight loss clinic was developed that provided nutrition and physical health education. The weight loss clinic provides social and psychological support to attendees.

Obesity Intervention in a Community Health Center

By: JENNIFER OKOH

The objective of this practicum was to develop an effective weight loss intervention program.

Focus of intervention was mainly obese population at a community Health Center.

Obesity has been linked to lots of medical conditions including metabolic syndrome, hypertension, diabetes, coronary heart disease etc.

Obesity’s financial cost in 1995 was $99 billion

Obesity responsible for 111,909 excess deaths in 2000

Prevalence of obesity in American adult population in 2007-2008 was 33.8%

64.7% of charts surveyed were obese

Special duties during practicum

• Background research on obesity and its impact on the community
• Recruiting and referring obese patients to weight loss clinic
• Reviewing charts and collecting data

“Obesity: The American epidemic.”
Lynch Syndrome and Endometrial Cancer

Screening for Lynch Syndrome in the MD Anderson Endometrial Cancer Patient Population

By: Azy Zangeneh

Introduction

About 2-3% of endometrial cancer is due to Lynch syndrome, a hereditary condition caused by a mutation in one of several DNA mismatch repair genes. Individuals with Lynch syndrome, also known as hereditary nonpolyposis colorectal cancer (HNPCC) syndrome, have more than a 70% chance of developing colon cancer by age 70. Due to the low yield in referring all endometrial cancer patients for genetic counseling and risk assessment, it is instead more appropriate to target patients whose personal and family histories are suggestive of a hereditary condition.

Public Health Significance

Endometrial cancer is the most common type of cancer in women with Lynch syndrome. The early diagnosis of Lynch syndrome in endometrial cancer patients has important clinical and public health implications. Identification of Lynch syndrome in one individual could facilitate the identification in other family members as well. These patients can then be monitored and choose to undergo increased screening and/or prophylactic surgeries to reduce their risk of cancer.

Essential Public Health Services

“Link people to needed personal health services and assure the provision of health care when otherwise unavailable.”

Screening endometrial cancer patients for Lynch syndrome enables health care providers to direct high risk patients for further genetic counseling and risk assessment. MD Anderson recommends the following screening guidelines and preventive measures for women diagnosed with Lynch syndrome:

- colonoscopy every 1-2 years starting at age 20 (proven to reduce colorectal cancer morbidity and mortality)
- predictive genetic testing for family members

It is also worth noting that of all patients who met the referral criteria and were not seen for genetic counseling, a considerable proportion were non-local (87%) compared to local (13%). While this data is statistically insignificant, it may suggest an important barrier in access to genetic counseling for non-local patients. Suggestions for reducing such barriers could include collaborative efforts between MD Anderson and local hospitals and organizations that offer genetic counseling and testing.

Details of Practicum

My practicum was conducted at the Gynecologic Oncology Department at MD Anderson Cancer Center. The focus of my practicum was to describe the prevalence of personal and family history risk factors for Lynch syndrome in the MD Anderson endometrial cancer patient population. This was done by screening all new endometrial cancer patients using a genetic counseling questionnaire. The following questions were designed to identify endometrial cancer patients at risk for Lynch Syndrome:

1. Have you ever had colon or rectal cancer?
2. In your immediate family (first degree relatives) has anyone had colon, rectal, or uterine cancer?
3. In your immediate or extended family (first, second, third degree) has anyone been diagnosed before age 50 with colon, rectal or uterine cancer?
4. Have any of your relatives tested positive for a Lynch syndrome mutation?

Patients that answered “yes” to at least one question were considered to have met the criteria and were referred for genetic counseling.

Results

Of the 198 patients screened thus far, 32, or 16%, met the referral criteria. Of the 32, 2 patients tested positive for Lynch Syndrome (6%). Among these 32 patients, no patients answered yes to question 1, 88% answered yes to question 2, 25% to question 3, and 9% to question 4.

Risk of Developing Cancer With or Without Lynch Syndrome by Age 70

A woman with Lynch syndrome is 47 times more likely to develop endometrial cancer than the general population.
“Healthcare should be universal, affordable, accessible, accountable, comprehensive and just.”
Source: http://doctorsforchange.org/Declaration.html

Public Health Significance

One of the 10 essential public health services is to inform, educate and empower people about health issues.

The Voter’s Guide provides the community with an unbiased, nonpartisan and verbatim record of what their candidates stand for. The aim is to help members of the community have the tools to make informed voting decisions to elect the people who will become policy makers and implementers.

Doctors For Change is a group of physicians and healthcare professionals who embody the public health service of mobilizing community partnerships to identify and solve health problems. Several committees exist to address issues of mental health and obesity amongst others.

RESIDENT ATTITUDES TOWARDS PHARMACEUTICAL REPRESENTATIVES/ VOTERS GUIDE 2010 – A TWO PART PRACTICAL EXPERIENCE WITH DOCTORS FOR CHANGE

Each election season Doctors For Change produces a healthcare related Voters Guide. This year, we created a four-part questionnaire and contacted candidates via email, US postal mail and telephone to obtain responses. The responses were put together in a voter’s guide and distributed throughout Houston and online.

Interactions with pharmaceutical representatives have been shown to influence the behavior of medical residents. We are conducting a survey of Baylor residents to examine their attitudes regarding these interactions.

There is a 6 month timeline for this project; the first phase of the survey has been completed, however the results are not available for distribution at this time.

Highlights and Tasks

- Visiting Baylor residents to talk to them about the survey
- Speaking to electoral candidates and discussing their opinions on healthcare in Texas.

Residents are busy and tired; they need many reminders to respond to surveys!
Change for Children

Major Events at C@R:

• Release of Children at Risk’s book “Growing up in Houston.”
• Accolades: celebration of 20 years of advocacy efforts by Children at Risk.

Addressing the Critical Needs of Our Children through Advocacy.
By: Alina Batool

Children at Risk has been actively driving change for the children in Houston for the past 20 years. In their upcoming legislative agenda, C@R is focusing on improving community health through increased utilization of community health workers.

As part of my project, I was involved in a bill proposal for creating sustainable sources of funding for CHWs.

Our team actively collaborated with major stakeholders and organizations to find viable funding options for CHWs. As part of the C@R team, I performed research, attended meetings, and wrote policy materials such as one-pagers and white papers to better inform our intended audience regarding this important topic.

The final product is a bill proposal which we are hoping will be presented in the upcoming legislative session.

“Speak up! For the future of Houston’s children.”

CHWs Improve Community Health

Developing policies and plans that improve the well-being of our children is task that Children at Risk has taken on courageously. Our advocacy site is not only relentless in the pursuit in the overall well-being of our children, but is also actively bringing together organizations and individuals to join our cause. Children at Risk’s efforts to propose a bill that encourages use of cost-effective and culturally sensitive means to improve community health is commendable.

Through addressing changes at the policy level, there is hope for broader improvements for our children. Community health workers have been shown to be effective in improving the health status of the people they serve, through health education, healthcare navigation assistance, and increasing access to primary care.

Sustainable funding for CHWs will provide the children of Texas with better means of finding medical homes, immunizations, and health education.
In Service to Homeless Youth

Leading one of Texas’s Greatest Assets: Covenant House Texas

By: Jamie Freeny

I had the pleasure of completing my practicum at Covenant House Texas under the direction of Ronda G. Robinson, CEO/Executive Director. This organization’s mission, values, and services align with my career goals. I completed work on an operational and analytical level as well as gaining much knowledge through observation and conversation. I developed a systematic model for Mental Health Service communication and transition for CHT and I examined, formatted, and updated CHT’s current Policies and Procedures Manual. I was exposed to the many licensures and components that are necessary to administrate a facility such as this. I was also able to discern the characteristics of an efficient and effective leader. This invaluable learning experience taught me lessons that a classroom is unable to teach.

HIGHLIGHT

I engaged with many of the youth, learning about the life events that brought them here. I found that many are ambitious and have the desire to make better choices to live a better life.

Covenant House Texas (CHT) provides many of the Public Health Essential Services, (PHES) to the youth and communities in Texas. Their direct impact on public health is decreasing the number of youth living on the street and providing them with the necessary resources to help them become healthy, productive citizens. CHT builds relationships and mobilizes community partnerships in order to provide many essential services to the youth they serve. Relationships with local medical and academic institutions allow for free psychiatric services, medical care, and health education homeless youth need. If services are not able to be rendered from the C. Richard Stasney Health Clinic (located on the campus of Covenant House Texas), staff will transport the youth to a partnering clinic that is able to provide the services they need. CHT has many policies that support individual and community health efforts. Policies, such as zero tolerance for drugs and free alcohol and drug counseling help to increase the number of clean and sober youth living in our community, and policies such as providing complete medical assessments for each admission and meeting these medical needs help decrease medical cost overall and decreases the spread of disease. A youth living on the streets can come to the Covenant House and receive free medical services, mental health services, vocational and education guidance, assistance with obtaining essential documents such as an ID or birth certificate, needs to complete one’s activities for daily living, and safety. Most importantly, the youth will receive care and support from individuals who are concerned about their wellbeing. These basic life needs are essential and allow for a person to be self-sufficient and knowledgeable. These provisions are provided to thousands of youth, giving youth the opportunity to return to society as productive individuals, allowing for a better community.
The Public Health Essential Services that most closely relate to my practicum are:

1. Monitor health status to identify community health problems.
2. Diagnose and investigate health problems and health hazards in the community.
3. Inform, educate, and empower people about health issues.
4. Mobilize community partnerships to identify and solve health problems.

The IMPACT Collaborative meetings I attended aim is to raise awareness of high infant and maternal mortality rates and to advocate for policy changes that raise the level of the quality of care provided.

Doctors for Change addressed this issue by collaborating with other groups and agencies with similar missions in order to be most effective. I attended Harris County Hospital District IMPACT Collaborative meetings as well as met with leaders of the IMPACT Collaborative’s Legislative Advocacy group and Public Awareness group to brainstorm tangible projects Doctors for Change can take on to contribute to the collaborative’s aim of improving maternal and child health in Houston.

“Following a drop to 5.93 deaths per 1,000 live births in 2001, the rate of infants dying before their first birthday reached a high of 6.81 per 1,000 live births in 2005, the highest death rate in a decade.”
Breast Cancer in Texas

Abstract

Although periodic screening, early diagnosis, and treatment reduce breast cancer mortality, in Texas low income uninsured and underinsured women access screening and preventive services less often and are diagnosed later.

To address this disparity, the Texas Breast and Cervical Cancer Services (BCCS) Program was created in 1991 to pay for clinical breast examinations and mammograms for the underserved population.

Public Health Significance

Diagnose and Investigate

Early detection and timely therapy are vital for successful control and mortality reduction of breast cancer given the disease’s high rates of metastasis and recurrence.

Monitor/Mobilize

This study proposes to fill the gap by providing new information on the outcomes of women who received services from the BCCS programs as compared to similar women in Texas who did not.

The purpose of this study is to evaluate the outcomes of Texas’s Breast and Cervical Cancer Early Detection (BCCS) Program using a database linkage with the Texas Cancer Registry (TCR).

The research team will link data on patients diagnosed with breast cancer in 1995-2010 from the TCR with BCCS program data to determine the screening and diagnostic history of a cohort of BCCS participants and a matched cohort of non-participants with breast cancer and no services billed to the program.

Develop Policies and Plan

The information will serve as a basis for understanding the benefits and failings of the BCCS model when implemented in real life-settings and it will be used to develop strategies for program improvement and/or expansion to a larger proportion of the target population.

Develop innovative strategies for BCCS Program improvement

- Early detection and timeliness treatment
- Mortality reduction of breast cancer
- Fill the gap of program evaluation

Tips for practicum

“Contribution, Communication, Collaboration, Concentration”

There are 214 locators contracted with BCCS Program in Texas
Weight Management for Children

Health Kids Rock: a Weight Management Program for Children

By: June Liu

Alarming, obesity is a disease that is increasingly affecting children, so my host organization, Community Health Choice, Inc. (CHC), is taking steps to help fight it.

CHC is a nonprofit managed care organization serving families on Medicaid and the Children’s Health Insurance Program. Since most of its members are children, it is especially concerned with diseases that affect this population.

In 2011, CHC will launch Healthy Kids Rock, a disease management program for children who have been diagnosed as obese. CHC will partner with other community organizations to provide the children and their parents with information on nutrition and exercise. The project that I worked on was a program work plan that will be submitted to the Health and Human Services Commission for approval.

Public Health Significance

Healthy Kids Rock most closely relates to these Public Health Essential Services:

- Inform, educate, and empower people about health issues
- Link people to needed personal health services and assure the provisions of health care when otherwise unavailable
- Develop policies and plans that support individual and community health efforts

Healthy Kids Rock is a natural extension of what CHC does on a daily basis, which is managing the health care of a low-income population. By reducing the severity of cases of childhood obesity, the children themselves benefit not only from more active lifestyles, but they will benefit by preventing more severe health complications of obesity. This, in turn, translates into countless positive impacts on aspects of physical and behavioral health, and will have lifelong implications for the children involved.

“The incidence of childhood obesity is now at epidemic levels.”
Tom Harkin
Emergency Triage in Botswana

Creating the PATS

Princess Marina Hospital Accident & Emergency Triage Scale

Design, inter-rater reliability, compliance, and acuity of a triage-based quality improvement project in the Accident and Emergency (A&E) department of a government hospital in Gaborone, Botswana.

BY: Paul Mullan, MD

Over the past several months, I have been working with the University of Botswana (UB) to design a new triage system for their A&E.

The University of Botswana’s approach was to use my emergency medicine interests and time to collaborate on the project while still building the local capacity of their staff to perform projects in the future.

The two major products were the newly redesigned triage system and a manuscript which will be published.

The results show that the system has a high inter-rater reliability (using written patient scenarios), high compliance (using percentage of patients with full vital signs as a marker), and good predictability in its levels of acuity when looking at variables such as admission, death, or intensive care needs.

Public Health Significance

Public Health Essential Services Provided:

Mobilized community partnerships to identify and solve health problems. Three institutions (UB, PMH, and Texas Children’s Hospital) used their combined resources for the mutual benefit of their respective missions. These missions include education, patient care, and research. Capacity building for completing future, similar projects has also been accomplished both for myself and for my colleagues in Botswana.

Evaluated effectiveness, accessibility, and quality of personal and population-based health services. Through a newly designed electronic medical record keeping system, the PMH A&E can now monitor the compliance with the new triage system along with its efficacy in being able to predict patient acuity. This will contribute to effective allocation of resources in this limited-resource environment. Ultimately, this should lead to decreases in morbidity and mortality for patients who present to the A&E with acute, potentially life-threatening conditions.

“A hospital in need, partner collaboration, and persistence against obstacles – contributed to a successful triage rollout.”

Botswana is in Sub-Saharan Africa - Population 1.6 million
Map from: http://www.pbs.org/newshour/health/aids_in_africa/botswanafacts.html
Applying Strategic Elements for the Development of a Service Line

By: Shweta Pathak

The Methodist Hospital has recently terminated its longstanding relationship with The Baylor College of Medicine. The hospital has embarked on an ambitious expansion and replacement program that seeks to restructure the institution as one of the nation’s leading academic medical centers while improving patient care and increasing their presence in the local and national medical community.

As part of this restructuring, the hospital opened 1.6 million square-feet, state-of-the-art facility committed to carrying out outpatient services and procedures on July 19 of this year.

One of my tasks as an administrative intern was to create a promotional pamphlet to attract orthopedic surgeons to the OPC.

In order to accomplish this task, I interviewed some key surgeons from various orthopedic specialties and their support staff to note their experiences about the outpatient center (OPC).

The objective of the survey was two-fold. In addition to highlighting some of the surgeon-friendly features of the OPC, the survey also brought into focus issues causing dissatisfaction at the OPC. For instance, one of the surgeons pointed out inefficiencies arising in surgery schedules due to the layout of the recovery area. Suggestions for improvement can be used by management as guidelines for improving efficiencies in the system.

“The interviews afforded me the opportunity to note some of the day-to-day challenges experienced by administrative personnel in healthcare management.”

Public Health Significance

My project was not directly related to any of the essential public health services designated by the American Public Health Association.

However, the surgeon and staff interviews afforded me the opportunity to note some of the day-to-day challenges experienced by administrative personnel in healthcare management.

Moreover, once I concluded all interviews, I prepared a presentation summarizing the findings of the survey, which was sent to the Vice President of Operations for his review. The survey findings were then used to produce a pamphlet promoting the OPC to surgeons.

Going forward, I hope I will get to use what I learned from my experiences during the course of my career.
Cocaine Abuse

A double blind clinical trial
By: Juee Phalak

Perturbations to the Acetylcholine neurotransmitter system, which is involved in the brain reward and learning functions, may contribute to substance abuse. In our study at the Michael DeBakey VA Medical Center we are conducting a human laboratory research to test the effects of Rivastigmine, an acetylcholine-esterase inhibitor, and Huperzine A which in addition has several other effects.

My duties involved screening subjects to check for other psychiatric co morbidities, obtained informed consent from qualifying subjects, and upon randomization ensured medication delivery to the patients and monitored their mental state during their research participation. I also supervised the patients during drug self administration sessions to test the effects of the test medications versus placebo on cocaine craving. The final product will be a report as it is a long term study.

Results: The study is still ongoing. However an earlier double blind placebo controlled study conducted by our group showed a reduction in the craving produced by laboratory administered methamphetamine upon treatment with Rivastigmine.

- I learned to interact with mentally ill patients and those suffering from cocaine addiction
- I understood the methodology of conducting clinical trials for the purposes of mental health research.

Public Health Significance

The National Survey on Drug Use and Health (NSDUH) estimates that in 2007 there were 2.1 million current (past-month) cocaine users. Cocaine abuse is a significant public health problem as cocaine is highly addictive and causes several short and long-term health effects.

My research involves a National Institute on Drug Abuse approved clinical trial using innovative research methods to test certain medications that may be used to reduce craving and treat cocaine addiction. Currently no medications are available to prevent relapse in patients addicted to cocaine and hence the public health significance of the study is clearly visible.

The Department of Infectious Diseases at the Michael E. DeBakey Veteran Affairs Medical Center conducts state of the art research in mental health and other health issues particularly those affecting veterans.

How cocaine produces its effects:

The Cocaine Abuser's Brain

Comparison Subject Cocaine Abuser (1 month after) Cocaine Abuser (4 months after)

Low dopamine receptors may contribute to the loss of control seen in addiction.

‘Working with a team of psychiatrists committed to find novel solutions to mental health issues was a learning experience.’
C. difficile - New Public Health Threat

Chetana Srinivas, UTSPH

C-Difficile

My Practicum this semester was at St Luke's Episcopal hospital. I worked as a research coordinator.

Diarrhea due to C-diff in hospitals is on the rise; and, is attributed to the overuse of antibiotics and hyper virulent strain. This infection affects 3million people/year; increasing the length of hospitalization, morbidity, mortality and cost. An observational study is being conducted of diagnosed hospitalized patients in order to determine the cause for recurrence in 10-40% of the infected individuals. My duties included data extraction, completion of paperwork, enrolling C-Diff positive patients in research and, follow-up with enrolled patients.

I presented a current journal article in one of the journal club meetings.

Antibiotics

C-Diff research performs following essential services of public health. Monitor

St Luke’s hospital’s CDI-patient data comes from surveillance of C. difficile in hospitalized patients.

Diagnosing and investigating

St.Luke’s laboratory provided the list of positive tested patients.

At the end of my practicum, there was an IRB review. It was a good experience preparing documents for the review!

Research also included providing education about the C-Diff infection to the positive tested patients. Also, Publishes papers based on the research.

There is an active collaboration with UT school of public health, St.Luke's hospital and pharmacy department of University of Houston.

This research is to find new insights and innovative solutions to the increasing C-Diff infection and recurrence.

C-Diff associated colitis has higher fatality and recurrence rate. Containment of infection in hospitals and institutions are necessary.

Use antibiotic judiciously

"Respect us we demand cultural competency too" -culture (bacterial flora)
Good Health Goodwill Clinic

Goodwill Good Health Clinic: Recommendations for Sustainability in 2011

By: Cassandra Brown

University Health System is a public healthcare organization that offers hospital and ambulatory services to the community of San Antonio and beyond. Specifically, I worked in the division of ambulatory services to relay administrative decisions throughout the clinics on and off site.

UHS currently partners with Goodwill industries to provide health services and education to the underserved populations in the community. Ultimately, the clinic off of Fredericksburg Rd was not meeting productivity numbers and a decision had to be made about its future: 1) Maintain center as a clinic with a Physician Assistant and staff, 2) Use as a health service center for education and screenings, 3) Close.

Through statistically analysis, budget constraints, and a thorough review of the patient demographics the team and I suggested the site be used as a health service center. A conference meeting was held to discuss the options with clinicians and UHS administrators.

Community screenings and immunizations would be held frequently focusing on diabetes, cardiovascular disease, hypertension, and weight/nutrition. This site could also be used to refer patients into the system and establish a line of care that many would not have.

What was the final product you created for your practicum site? If you’re able to share, what were the major findings or results?

“Every human being is the author of his own health or disease.”
-Hindu Prince Gautama Siddharta

Public Health Significance

As a large not-for-profit healthcare system, UHS directly monitors health concerns in the community, develops policies and plans that help serve the community, links and evaluates the effectiveness of the personal health services to the greater San Antonio area: specifically focusing on under insured and/or uninsured patients.

University Health System uses community outreach personnel to directly interact with San Antonio residents at local schools, blood and immunization drives, etc. to understand the essential needs and concerns facing the public. Medical models have also been designed and put into place to provide patients with a point of care access to start them on their health and wellness check-ups. These models will be critical as health reform in 2014 makes available more health opportunities.

Assessment and evaluation are the most significant determinants that relate to my project, and understanding not only the needs of the patients in the area but also the abilities that Goodwill and UHS can provide. It is important that realistic goals be imagined to deliver effective public health services.

It is critical that patients and providers be able to communicate effectively. Often times, cultural and language barriers may exist that hinder understanding. Do not be afraid to take control of your health and well-being by asking questions and staying informed.

Image from: http://www.npsf.org/askme3/for_patients.php
The STEER/Gateway Clinic Experience

A summer worth remembering: Getting to know my hometown

By: Claudia Cavazos

For my practicum, I was fortunate to participate in the STEER Program in Laredo. I also applied my experiences at Gateway CHC dental department. We visited several sites that dealt with border health and cultural applications to public health. From collecting samples in the Rio Grande to learning from an herbal medicine healer-the experience was non-stop learning. The hands on approach was especially gratifying.

My experience opened my eyes to the needs and struggles of my community. For the past ten years, I have been trying to improve access to oral health care to my community. Thanks to this experience, I am now better able to understand the community that I serve. My host organization was very open to my participation in the STEER Program.

For my final project, I presented a power point on dentistry to my fellow STEER participants.

- Obtaining water samples from the Rio Grande river-Amazing
- Visiting the colonias and their community center gave me a firsthand look at their living conditions and their needs.

Public Health Significance

My practicum experience related to the Essential Services of Public Health because due to my experience, I am more keen in helping people become more educated about their oral health. It is very important to inform, educate and empower people about their oral health.

Gateway Community Health Center is a federally funded FQHC that has been offering health services to the citizens of Webb County and surrounding areas for 40 years. They emphasize quality, personalized health care for all with a large emphasis on prevention. They offer a variety of health services including maternity services, medical services to adults and children, pharmacy services, x-ray services, laboratory services and dental services.

The STEER Program stands for South Texas Environmental Education and Research. Its purpose is to bring together medicine and public health. It does this by immersing the students in a unique experience in the border area of Laredo, Texas. It allows students to experience the unique environment and culture of the Texas-Mexico border. Laredo, Texas borders Nuevo Laredo, Mexico.
Public Health Significance

This is an important public health topic because paramedics are exposed to MRSA through direct patient care and shared living quarters with multiple first responders. Because carriage of MRSA has been identified as a major risk factor for subsequent invasive infections, an understanding of the risk factors for colonization of MRSA is crucial to understanding the potential for the transmission.

My practicum addresses the essential public health service of monitoring the health status of individuals in the community to identify health problems. Many times EMS professionals are the first ones to notice trends in community injury health and increases in infectious disease.

My practicum also addresses the essential public health of mobilizing community partnerships. ATCEMS has many partnerships with area schools, universities, health departments, and surrounding EMS departments.
**Public Health Significance**

The Institute strives to address the Essential Services of Public Health of “inform, educate, and empower people about health issues” and “research for new insights and innovative solutions to health problems.”

**Research:** The Institute has accumulated the largest database of objective physical fitness measures with the Cooper Center Longitudinal Study (CCLS), which has repeatedly been used to shape public health policy in the U.S.

**Education:** The institute also has a strong focus on relaying health information through courses and certificate training relating to health and fitness. With approximately 5,000 people a year trained or certified, the Institute has a great public health impact. If these 5,000 people went on to teach 100 others, 500,000 people would be reached on a yearly basis.

Since the Fit for Duty manual is targeted for a lay audience, I had to rewrite much of the existing manual in order to effectively “inform, educate and empower” others so they could successfully teach.

**Special events/ duties during the practicum**

- I got to work closely with renowned health and fitness experts.
- I had the opportunity to go to weekly seminars from invited speakers on health related topics.

“It is easier to maintain good health through proper exercise, diet, and emotional balance than to regain it once it is lost.”

- The Cooper Philosophy
Consumer Oriented and Operated Health Insurance Plans

2010 Health Care Reform Legislation: Consumer Oriented and Operated Plans

By: Lindsey Fetty

The Patient Protection and Affordable Care Act of 2010 required the Secretary of Health and Human Services to foster the creation of non-profit, member-run health insurance companies in all 50 states and District of Columbia which are known as Consumer Oriented and Operated Plans (CO-OPs) that will offer qualified, affordable health plans. 15 people were appointed to the Advisory Board of Consumer Oriented and Operated Plans one of which is Dr. David Buck. Upon being admitted to the board, Dr. Buck was interested to know under what circumstances advisory boards have served presidents and the government in the past. At the end of my practicum, I presented Dr. Buck with a literature review consisting of peer-reviewed literature containing information history of advisory committees, past uses of advisory committees by presidents, the types of people who seek positions on advisory boards, etc.

Duties:

- Literature review on previous advisory boards
- Research on call for applications for other similar grants being offered by the government

"There are risks and costs to a program of action. But they are far less than the long-range risks and costs of comfortable inaction."

~ John F. Kennedy

Public Health Significance

- Inform, educate, and empower people about health issues.
- Develop policies and plans that support individual and community health efforts.
  - Consumer Oriented and Operated Plans will be made to help all people achieve a major goal of the ACA 2010 by providing affordable health insurance.
- Enforce laws and regulations that protect health and ensure safety.
  - The advisory board was formed by law and will make recommendations about which companies or organizations will be able to provide health insurance to the American population.
- Link people to needed personal health services and assure the provision of health care when otherwise unavailable.
  - Affordable health insurance will be provided through the entities that are recommended by the advisory board.
- Assure a competent public health and personal healthcare workforce.
  - As the American population gains necessary health insurance, the workforce will become healthier.
- Evaluate effectiveness, accessibility, and quality of personal and population-based health services.
  - Other advisory boards were evaluated by their effectiveness in order to give guidance to the Advisory Board of Consumer Oriented and Operated Plans.
- Research for new insights and innovative solutions to health problems.
  - By performing the literature review, new ideas and questions were raised on how this advisory board could be run.

*Adapted from APHA.org
During the Fall 2010 Semester I worked with the Brownsville Public Health Department and the Brownsville-Matamoros Binational Health Council during my practicum.

For my main project I developed a protocol to access baseline rates of childhood obesity in Brownsville, Texas. This Protocol will be used by the Binational Health Council in other cities along the U.S./Mexico Border.

To achieve this goal I did a literature review to establish the best practice to develop the protocol for data collection. I also developed ‘Information Collection Records’ and determined the best analysis for this study.

The results were presented in a report as well as a PowerPoint presentation to the director of the Health Department and the Brownsville-Matamoros Binational Health Council.

Public Health Significance

Although national and state surveillance programs exist, establishing local rates of obesity help Public Health officials, school authorities, and parents implement culturally sensitive interventions and measure their effectiveness. Mexican Americans are the fastest growing ethnic group in the United States, the population along the border continues to increase from both immigration and U.S. births.

In addition to implementing interventions, baseline measures and sustainable local surveillance techniques of childhood obesity at the federal, state, and local levels serve as an important public health surveillance tool if reducing the rate is the goal.
Public Health Significance

The self-assessment phase of the Right to Health Campaign EVALUATED the state of the right to health in communities around the globe. The groups documented the effectiveness, accessibility and quality of health services in their countries.

With publications such as PHM Global News and Global Health Watch as well as the International People’s Health University, the organization INFORMS, EDUCATES AND EMPOWERS people about their health rights.

By having access to public health leaders in many countries and sectors, PHM has a unique opportunity to MOBILIZE communities to identify and solve health problems across the globe.

Through Campaigns, research, reporting and advocacy, PHM and its members play an influential role in DEVELOPING POLICIES AND PLANS to support individual and community health efforts.

(APHA, “10 Essential Public Health Services”)

Highlights:

- Develop new & updated brochure
- Coordinate publication of newsletter “Global Health News”
- Interview PHM leaders from across the globe regarding the Right to Health in their countries

“Equity, ecologically-sustainable development and peace are at the heart of our vision of a better world - a world in which a healthy life for all is a reality…”

–People’s Charter for Health

The People’s Charter for Health

The most widely endorsed consensus document on health.

Check it out! www.phmovement.org

The People’s Charter for Health declares PHM’s core mission and beliefs. (Graphic developed by Leigh Haynes.)
Measuring Sedentary Behavior in a Primary Care Setting

By: Emily Hébert

For my practicum, I worked in the Department of Clinical Sciences at UT Southwestern. As a research assistant, I had the opportunity to work on several public health projects that covered topics including physical activity promotion, vaccine awareness, and cancer prevention.

The primary focus of my practicum was a pilot study, led by Dr. Kerem Shuval, investigating the validity and feasibility of a tool called the Rapid Assessment Disuse Index (RADI) in a primary care setting. RADI is a quick diagnostic tool that will assess sedentary behavior and can help physicians counsel patients on the importance of physical activity. Accelerometer readings will help determine if the questionnaire accurately evaluates sedentary behavior.

While working on the RADI study, I learned about the tremendous effort and research that goes into the development and approval of a clinical study.

Public Health Significance

New evidence suggests that sedentary behavior and prolonged periods of sitting have distinct health consequences that are independent of how much an individual exercises. Research focusing on “inactivity physiology” has become popular in the past few years; however, there are no studies that focus specifically on sedentary behavioral counseling. Furthermore, current methods for evaluating physical activity group sedentary behavior in the same category as “not enough exercise,” which is inaccurate.

The RADI study meets at least 3 of the APHA essential public health services: it is research attempting to find new public health solutions, it will help diagnose and investigate a public health problem, and it will evaluate the efficacy of public health services.

“Going to the gym may not be enough if you sit at a desk all day.”

Special events/
duties

- Developed instructional materials for study participants
- Calibrated and tested accelerometers
- Attended Translation Committee meetings to adapt materials for Spanish-speaking populations
The practicum took place at the UTHSCSA campus with Dr. Loverde, an expert in Schistosomiasis infections and a pioneer in exploring polyparasitism in Brazil. The final product was a formal report summarizing the key challenges and lessons learned throughout the practicum experience. Additionally, at the culmination of the practicum itself, Dr. Loverde will begin several grant applications to fund research in the field exploring polyparasitism and immune system modulation in Brazil.

Polyparasitism and Immune System Modulation – Implications for Prevention and Treatment Strategies

By: Jose L. Louro

My practicum entailed a thorough literature review exploring polyparasitism and immune system modulation. Given that polyparasitism is the norm rather than the exception, effective implementation strategies geared toward prevention/control and effective treatment is bombarded with several challenges. As it pertains to effective vaccination coverage in these countries, public health practitioners need to evaluate the effect of parasitic illnesses conferring a strong Th2 immune response that may inhibit or benefit the immune modulating responses of most vaccinations that illicit a Th1 like response. Elucidating those benefits and/or risks deems further exploration.

The practicum took place at the UTHSCSA campus with Dr. Loverde, an expert in Schistosomiasis infections and a pioneer in exploring polyparasitism in Brazil.

The final product was a formal report summarizing the key challenges and lessons learned throughout the practicum experience. Additionally, at the culmination of the practicum itself, Dr. Loverde will begin several grant applications to fund research in the field exploring polyparasitism and immune system modulation in Brazil.

Public Health Significance

This practicum experience is closely tied to the Public Health Essential Services of Mobilization and Research. With increasing research and exploration derived from field projects, researchers are able to determine the true prevalence estimates of polyparasitic illnesses in endemic regions. With this data in hand, researchers, such as Dr. Loverde, are able to mobilize community leaders, local physicians, public health workers, and ministries of health to devise plans and implement treatment/control platforms.

Through the literature review, we were presented with immense accounts of how successful treatment and control programs centered on establishing an informed public. In trying to implement such strategies within a region with weak infrastructures, we explored the abilities of researchers in trying to convince and make “appealing” the need to administer mass drugs (MDA) and thorough surveillance in endemic regions.

This is what the grant applications call for and this is how the lessons molded from the practicum will work in tying research and community mobilization into one primary objective.

Microscope observation of S. mansoni worm pair.
Source: CDC

“Polyparasitism is the norm rather than the exception in most developing countries.”

S. mansoni antigens exerting a Th2 immune response while down-regulating a Th1 response
Source: www.helmintherapy.com
Public Health Significance

The two main Public Health Essential Services (PHES) addressed through this practicum are the monitoring of health status to identify community health problems and diagnosing and investigating health problems and health hazards in the community. SPAN seeks to monitor overweight and obesity among school-aged children throughout Texas in order to assist in the prevention of chronic conditions such as cardiovascular disease, high blood pressure, and type 2 diabetes.

Addressing Childhood Overweight and Obesity in Texas

By: Chelsea McGill

To address the issue of obesity among school aged children in Texas, the School Physical Activity & Nutrition (SPAN) Project was created to gather specific data regarding childhood obesity, nutritional health, and physical activity throughout the state. I participated in the two main aspects of SPAN data collection; disseminating surveys to 4th, 8th, and 11th graders and height/weight measurements.

Besides disseminating surveys and gathering heights and weights, I also organized surveys and measurement instruments in preparation for distribution and cleaned surveys. I was also in charge of researching other states with similar programs and surveys in order to see where we stood in comparison.

I also lead the distribution of a survey called the Health Policy Survey. This survey was sent to school principals and other administrators via email asking questions regarding school health policies and practices.

Public Health Significance

This surveillance system further leads to another PHES, the development of policies and plans that support individual and community health efforts. Information gathered through SPAN will direct government funds, policies, and programs towards populations in Texas who need it most.

SPAN is the School Physical Activity and Nutrition Project conducted by researchers at the University of Texas School of Public Health through the Michael and Susan Dell Center for Healthy Living.

I gained valuable experience in the field of public health research.
I was able to work with various school districts and interact with children.
I traveled to different cities throughout Texas.

“The overall goal of SPAN is to establish a surveillance system to monitor the prevalence of overweight/obesity in school-aged children in Texas.”
Only information received was the chart number, the salivary flow rate, and bacteria count. After reviewing the data, patients with type 2 diabetes have a lower saliva flow rate which is consistent with the background information. The bacteria count was decreased in patients that use tobacco.

**Special events/duties/highlights during your practicum**

- Learning how to do adequate research
- Working with very influential people

“Saliva is a very important factor in helping maintain good oral health.”

**Community Dentistry Research**

The Changes in Salivary Composition and Rates in Type 2 Diabetes Mellitus and Tobacco User Patients

**By: Christina Mueller**

During my practicum experience I was able to work with Dr. David Cappelli, head of the Community Dentistry Department at the University Of Texas Health Science Center San Antonio Dental School. Our main goal was to gather information on the changes saliva makes in patients with type 2 diabetes mellitus and in patients that are tobacco users. The data that was given to do this research was through the Dental School. Each student takes a saliva sample from patients that are seen at the clinic and the samples are tested and reviewed by the lab in the community dentistry department. HIPAA rules were followed and the only information received was the chart number, the salivary flow rate, and bacteria count. After reviewing the data, patients with type 2 diabetes have a lower saliva flow rate which is consistent with the background information. The bacteria count was decreased in patients that use tobacco.

**Public Health Significance**

The study done during this practicum experience is a retrospective case-control analysis of secondary data obtained from the University of Texas Health Science Center at San Antonio, Dental School, Department of Community Dentistry from 2002-2010. The main purpose of this study in looking at the American Public Health Association’s 10 Essential Public Health Services is research and the ability to inform, educate, and empower people about health issues presented in this study. Before evaluating the data, background information was gathered on research that was previously done on this study. The research that was done was to inform and learn from earlier studies that were done on how salivary flow rates and bacteria counts are affected in patients that have type 2 diabetes mellitus and patients that use tobacco. In doing this research we learned that salivary flow rates are lower in patients with type 2 diabetes mellitus which was consistent with our findings. We also learned that in patients that use tobacco bacteria counts can be affected which was also consistent with our data. After our findings we will be able to inform patients with type 2 diabetes mellitus and patients that use tobacco what changes in saliva composition are made due to their health factors.
Public Health Significance

- Enforce laws and regulations that protect health and ensure safety.
- Assure a competent public health and personal healthcare workforce.
- Evaluate effectiveness, accessibility, and quality of personal and population-based health services.

The Research Division at UT Dental School is committed to developing Standard Operating Procedures to protect and ensure safety for the subjects both humans and animals participating in research studies.

By training the personnel, the UT system can ensure a competent health care workforce. This will in turn improve the health services and thereby promote successful research practices.

Special events/ duties during your practicum

- Regular meetings and communications were part of the practicum training.
- Research division meetings made the practicum experience very formal and the feedback helped to understand the needs for standardized procedures in research practice.

"If you only do what you know you can do – you never do very much."

-Tom Krause

Integrating SOPs into Research Practice

By: Elizabeth Ninan

My practicum schedule set with my supervisor was a good move to draft the SOPs in time for monthly research division meetings held and chaired by the Director of the Research Division of the Dept. of Comprehensive Dentistry.

My responsibility was to draft 2-4 Standard Operating Procedures to be presented in the monthly meetings.

My supervisor then presented it at the meetings of the Research Division. Appropriate feedback was initiated (electronically or at meetings) to arrive at a final version of the presented SOPs.

Two SOPs: for Informed Consent and for BioSamples were presented and I have drafted the next 2 SOPs which will be presented in this month’s meeting. These will be finalized and on approval will be integrated into practice at the UT Dental School by May 2011.
Health Education for Youngsters! (HEY!)

Improving Child Health by Teaching Body Systems Nutrition Curriculum to Preschoolers

By: Johanna Peyton

HealthStart Foundation is a young non-profit working to address the issue of childhood obesity by applying nutrition education to body system knowledge. My role at HealthStart was to be the link between the organization and the student’s families and primarily consisted of two main tasks.

First, I developed and administered a parent survey as a means of evaluating the influence that the HEY! curriculum was having on the children and families involved. The survey measured lifestyle impacts addressed in the curriculum such as fruit and vegetable consumption and physical activity level and was designed to serve as an initial baseline to mark progress.

Second, I developed ~20 weekly take-home parent pieces that complimented and built upon the Healthy Education for Youngsters (HEY!) curriculum. These parent pieces are meant to inform, engage, and connect parents to what their children are learning.

Public Health Significance

My practicum experience was most directly related to the Public Health Essential Service (PHES) of “Inform, educate, and empower people about health issues”. One of the main aims of HealthStart is for children to learn the fundamentals of being healthy as naturally as they learn their ABCs. Through development and administration of the weekly parent pieces, one of my main tasks was to ensure that the families of these students were receiving this same fundamental health information. By filling in the information gap, HealthStart and I were empowering people to make healthier choices.

Fun HEY! Health Facts:

- Your brain is made up of 80% water which is why it is so important to drink eight 8oz glasses a day!
- Babies aren’t born with bony kneecaps. Babies are born with cartilage kneecaps that don’t fully ossify into bone until kids are 3-5 years old.
- The left side of your heart is stronger than the right side! The right side of your heart sends blood to your lungs to pick up oxygen but it is the left side of your heart that works to send that oxygenated blood to the rest of your body!
- It takes 42 muscles to frown and only 17 to smile! So show those pearly whites and smile!

HealthStart developed HEY! curriculum to address nutrition education by teaching kids the science behind how their bodies work!

Image source: http://www.healthstartfoundation.org/.

HealthStart teaches how healthy eating and physical activity positively impact your brain, bones, and muscles!

Image source: http://www.healthstartfoundation.org/.

Spring 2010 • Johanna Peyton • HealthStart Foundation • Health Education for Youngsters!
Public Health Significance

My practicum contributed to public health because it helped evaluate a program. The SFC was interested in learning how they could improve these markets and create awareness in the community.

It is important to evaluate programs in order to analyze their effectiveness and help improve them. Sustainable food center understands this and works hard to evaluate many of their programs. They analyze the coverage of their programs through process evaluation and look at how they can reach more people. Many programs that they currently implement are geared at targeting low income areas of Austin. Other programs include teaching adults how to cook health meals and working on teaching kids at schools how to grow their own fruits and vegetables.

During the experience I was able to...

• Create my own survey!
• Collect my own data!
• Work with many helpful people!

“I learned that many people wanted to work together and help each other.”
-Christa
Public Health Significance

The single most appropriate Public Health Essential Service that describes my practicum experience is “Diagnose and Investigate”. During the course of the mumps outbreak that started at Bexar County Jail, public health officials had to verify each diagnosis and investigate each case to find all contacts. Information gathering through these investigations was necessary to initially formulate and continually revise the plan to control the outbreak and minimize disease spread within the facility and the community.

San Antonio Metropolitan Health District is on the front lines protecting the health of the community. The Vaccine Preventable Disease Surveillance department investigates reports of diseases such as mumps, pertussis, and hepatitis B for which there is a vaccine. The goal is to minimize disease spread through vaccination and education.

Case Study of a Mumps Outbreak

By: Lillian Ringsdorf, MD

My major practicum project involved participating in the investigation and management of an outbreak of mumps at the Bexar County Jail. I sat in on meetings between public health and jail officials and helped compile information sheets and deliver vaccines to the facilities. San Antonio public health officials recommended isolation of cases, quarantine of contacts, and mass vaccination.

Frequent and clear communication was a critical factor in control of the outbreak.

I compiled detailed information about the cases, their history, and the timeline of the outbreak. I wrote a case study of the outbreak and submitted it to Correctcare, the quarterly magazine of the National Commission on Correctional Health Care. It will be published December 2010.

Effective communication is crucial during a disease outbreak.
Ensuring Every Baby Can

87% of Prenatal Education Program births were of normal birth weight, beating the national average.

Source: abcaus.org

Evaluating integral maternal and child health services provided by Any Baby Can in Austin, TX

By: HOPE ROOBOL

My role at Any Baby Can (ABC) was to provide a link between their program department – those implementing social service and public health programs such as Nurse Family Partnership (NFP) and Healthy Start – and their development department – those working to quantify and qualify the important work that Any Baby Can is doing. I did this primarily through evaluation, developing project logic models for 13 of their community program and indicators by which to best evaluate each program’s success. These models along with several knowledge and satisfaction evaluation instruments and reports served as my final project. At ABC, I researched many maternal and child health topics, with an emphasis on parental education to reduced child maltreatment and increase school readiness. Any Baby Can works to address these issues primarily through community classes, assessments and home visiting models.

Public Health Significance

Any Baby Can does not go a day without playing its part in providing the “Inform, educate and empower”, “Mobilize”, and “Link” public health essential services - providing both direct support services and connecting those in need to basic services such as food and shelter - as one of Austin’s primary maternal and child health social service agencies. ABC also serves as an important public health surveillance system as they reach many of Austin’s most vulnerable parents and children, acting as a barometer of public need. ABC also contributes to the field of research and is an innovator in the community, often the first or only organization to implement national evidence-based initiatives such as Parents as Teachers, NFP and Early Childhood Intervention. My own project at Any Baby Can served to fulfill the essential services of evaluation and a ensuring a competent work force, concentrating on reviewing the public health contribution ABC is providing for its clients and the community at large and identifying ways to measure and improve its role in this function.

Source: abcaus.org

Practicum Highlights

• Developed 13 Logic models, one for each of the organization’s community programs
• Developed 4 evaluation instruments for parenting education classes assessing knowledge, satisfaction and skills.
• Evaluated ABC’s Parent Summer Education Programming, serving 1000+ parents
• Attended St. David Foundation’s Grantee Program Evaluation Training

Source: abcaus.org
Residents of San Antonio are encouraged to participate in the Mayor’s Fitness Council initiatives to improve physical fitness and healthy diet.

Public Health Significance

The Public Health Essential Service (PHES) that most closely relates to my practicum experience was informing, educating and empowering the public schools and community. Behind the scenes, mobilization, research and evaluation occurred to plan and implement the initiatives with the help of important stakeholders, i.e. students, school staff and administrators, parents, and restaurants.

The Mayor’s Fitness Council aims to address the issue of obesity, which remains a factor in the increased risk for chronic disease, i.e. diabetes, heart disease, hypertension. The public schools were encouraged to participate and promote salads and fruit in cafeterias as well as increase education regarding healthy eating habits and physical fitness. Various activities are planned for 2011 that will be open to the general public. Awareness and education are the first steps to addressing adverse health issues.

The project is ongoing, thus my contribution to public health was in the form of gathering educative information regarding to healthy schools & fundraising, farm-to-work, community gardens, and best practices to inform their implementation within the city of San Antonio.

“Simply because San Antonio has been given a bad bill of physical health doesn’t mean it can’t be changed.”

San Antonio, previously first, remains to be in the top 10 for the fattest cities in the U.S.
Pregnancy Outcomes in El Paso WIC Population

Developing research to study pregnancy outcomes in El Paso pregnant women who are enrolled in WIC

By: Edianys Arlyn Velez

During this fall semester I worked on developing two research projects with the University of Texas School of Public Health, Tulane University School of Public Health and Tropical Medicine, University Medical Center, and the El Paso WIC clinics. One study looks to rates of prenatal transmission of Chagas Disease, while the other study aims to explore how diet, physical activity acculturation, and gene-environment interactions relate to pregnancy outcomes.

All organizations were interested in finding out more about pregnancy outcomes in the El Paso area and were willing to work together in hopes of eventually developing interventions that would benefit the El Paso women.

I was responsible for working with the different institutions in getting IRB approval for the projects, updating and editing some of the documents and application. I also scheduled meetings and conference calls.

Duties

• Organize documents for IRB submission.
• Serve as liaison between universities, hospitals, and WIC clinics.
• Edit documents and draft materials for use in study.

Public Health Significance

My practicum best highlighted the essential public health services of research and diagnosing and investigating health problems in the community.

Research was the basis of my practicum. I was drawn to the opportunity to learn new insights on Chagas disease and to see if it was present in this region. I was also very interested in finding innovative solutions to nutritional and physical activity barriers for pregnant women.

The practicum allowed me to learn the process of developing and trying to put into action an investigative study.

“For every minute spent in organizing, an hour is earned” ~Benjamin Franklin
Coordinated Approach to Child Health (CATCH) Program

By: ALISON WINTERS

I completed my practicum at Del Valle Independent School District, assisting with the continuation of the CATCH program in their elementary schools.

My major focus was planning and assisting with CATCH Family Fun Nights. Other duties included meeting with CATCH staff at schools, assisting with curriculum planning, and ordering materials.

Public Health Significance

The school district focuses on many of the essential public health services. However, the most relevant service in my practicum setting was to “inform, educate, and empower people about health issues.”

The goal of the CATCH program is to inform and educate students, parents, and teachers about healthy dietary behaviors and physical activity, and therefore, to empower them to make decisions that will benefit their health and well-being.

During my practicum experience, I was able to communicate directly with parents and their children at the CATCH Family Nights, providing educational materials and support that empowered healthy change in their homes.

Another experience affecting Del Valle ISD children is the CATCH newsletter. Those involved in CATCH were able to showcase their efforts, and others can learn from their stories, improving their own school health programs based on this newsletter.

As a final product, I created a CATCH newsletter, highlighting unique and interesting things being done at each elementary school in the district. The newsletter will be displayed on the Del Valle ISD website.

In addition, I compiled resources (accountability checklist and best practices for Family Fun Nights) that may be used as tools for continued implementation of CATCH in future semesters.

“When kids are presented a choice, they go for what’s SIMPLE and FUN; we can make a difference in their lives by offering them easy, appealing, healthy choices every day.”

-Tammy Simons

Special events/ duties during your practicum

- CATCH Newsletter
- Family Fun Nights
- Accountability Checklist
- Curriculum development
- Best Practices / Ideas
Lack of physical activity continues to contribute to the prevalence and incidence of chronic diseases. Community based efforts and innovative strategies are needed to address physical inactivity and its associated health conditions. PARD and the future exercise referral/prescription program address the essential public health services of research and mobilization. Currently, exercise referral is not a common practice in the U.S., but the program provides a strategic and unique opportunity to bridge the gap between public health promotion and the medical community. PARD continues to seek input from medical professionals and community members while designing the exercise referral program. Additionally, this project involves PARD’s collaboration with the Texas Department of State Health Services Adult Health and Chronic Disease unit and other community partners that provide support as well as assist in networking and marketing.
For more information regarding
The University of Texas School of Public Health,
Office of Public Health Practice
and the practicum program, please visit:

http://www.sph.uth.tmc.edu/academics/practicum/