Office of Public Health Practice

Practicum Abstracts e-Book

Summer 2007 e-Book (Vol.2)
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Topic: Air Quality

Title: “Analysis of Air Toxic and Meteorological Data for a Community Advocacy Organization”

By Steve Russell

Public Health Significance
A practicum was completed with Mothers for Clean Air (“MfCA”), a non-profit, membership organization concerned with air pollution in the Houston-Galveston area and its effects on children's health. The specific project was to analyze air toxics data from a South Houston neighborhood and to determine if correlations existed between concentrations of the air toxics and meteorological data. The project had public health significance as it concerned the effects of air pollution on children’s health.

Approach
Hourly concentration data for fourteen air toxics and meteorological data collected by the Texas Commission on Environmental Quality (“TCEQ”) in a South Houston neighborhood during seven 72 hour sampling periods were downloaded from the TCEQ website in text format and loaded in Excel. The data, which were in parts per billion, were converted to mass measurements (mg/m3). The TCEQ does not use daylight savings time (“DST”) in its reporting and adjustments were made for sampling periods during which DST was in effect. SPSS data files were created from the Excel spreadsheets and the data were analyzed. Because the air toxic data did not appear to be normally distributed, the data was Log 10 transformed. Wind direction data, which were reported in degrees, were converted to eight “wind bins” (north, northeast, east, etc.). Transformed air toxics data that appeared to have approximately normal distributions for all wind bins were analyzed using one-way ANOVA with Bonferroni post hoc comparisons. Air toxics data that did not appear to have approximately normal distributions were analyzed using non-parametric methods. Statistical significance for all analyses was set at p < 0.05.

Findings
A report was prepared, summarizing the findings from the statistical analyses. Generally, concentrations of air toxics in the subject area were
lower when the winds were out of the south or southeast and higher when winds were out of the northeast or east.

**Essential Services of Public Health**
The essential service of public health addressed by this project was protection from environmental hazards. The analytical findings from this project will be used by MfCA as part of its continuing work on children’s health issues.

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**Topic: Asthma**

**Title: Role of proteases in human asthma**

**By Gary Chang**

The practicum I was involved in was a series of walk-through evaluations for a case-control study looking at proteases in human asthma. It was a collaborating effort by the University of Texas School of Public Health, Baylor College of Medicine, and Texas Children’s Hospital Asthma Center. The goal of the study was to determine the innate immune signaling pathways activated by allergens that condition the lung for subsequent allergic lung diseases. The overall aim was to determine the relationship between allergenic proteinases in the home environments and childhood asthma. There were five main tasks done on each of the twelve walk-throughs. First, a technician evaluation of the home. Second, a baseline questionnaire to be filled out by the child and parent. Third, a measurement of ambient CO, Temperature, CO2 levels, and relative humidity were collected by using a Q-Trak device. Fourth, measurements of each room to calculate the total house volume. Fifth, dust sampling collected from the participant’s bedroom area. Five dust samples will be collected using a vacuum cleaner and special dust sleeves from DACI Laboratories. The samples are collected for a minimum of two minutes each in order to obtain an adequate amount of dust to be later analyzed. The samples were stored in an ice cooler and kept frozen until they were delivered to the laboratories. The room measurements were done using a digital tape measure device. It was a relatively simple task; however the device would occasionally not work under bright conditions. The Q-Trak measurements were electronically logged and stored in the device automatically. The most important part that task was to ensure the battery was fully charged and the time of the sampling periods were adequate. The
inclusion criteria for the cases were carefully planned out before each patient visit. These included any children with mild intermittent, mild persistent or moderate persistent asthma. Also any children six to 18 years of age recruited from a specialty asthma referral clinic – in this case it was Texas Children’s Hospital Asthma Center. For the controls, the inclusion criteria were any non-asthmatic children from 6 to 18 years of age who are also recruited from Texas Children’s Hospital Asthma Center. It was important that the study did not include children with severe persistent asthma, chronic lung disease other than asthma, someone who lives with smokers, has a history of premature birth, sever eczema, or congenital or chronic heart disease. The study has been planned to take about five years to complete, therefore the results have not been determined yet. A few problems that I had encountered in my home visits were very minor involving equipment failure. All the participants that have been reviewed so far were very courteous and polite. The participants were rewarded at the end of our visits with a $25 gift card to Wal-mart. A few of the participant’s parents preferred a Spanish language questionnaire, therefore, a Spanish version was written to accommodate these requests. The walk-through was important for the study because it provided information about the ventilation of the home. Square footage, volume, mold, water damages, dust, CO2, humidity, and pets are all factors that need to be considered in asthma patients. No home that was evaluated was ever the same as another participant. This practicum addresses the need for further studies to determine the relationship between air quality in homes and asthma.

Topic: Breast Cancer

Title: Breast Cancer Survival Followup Study Recruitment

By Sandra Lee Guerra

The Breast Cancer Survival Followup Study is ongoing study that is aiming to examine the role of exposure and genetic factors so as to identify more important predictors of survival than the standard methods. This would help future breast cancer because they would be able to incorporate some of the exposure factors identified into their own lives so as to increase their chances of survival. My role in this study was to recruit and interview breast cancer patients for this study. Once they were
interviewed, I was in charge of facilitating the collection of the consent form and the blood specimen for the genetic tests. Out of the 280 patients assigned to me, I was able to recruit and interview 170 patients. The remaining patients were either refusals or I was unable to contact them. Out of the 170 patients, I was able to obtain samples on 112 patients. I am currently still working on contacting the remaining patients to try and obtain the outstanding patients. I found that it was easier to contact older patients during the weekday mornings and those who worked were much easier to get in contact with during the evenings and on Sunday afternoons. The minority population was much more likely to refuse participation in the study than the Caucasian population. Those women who were of Mexican American descent usually had to discuss the study with their spouse before consenting to participate. This practicum was a valuable learning experience for me as it helped me learn about the varying complexities associated with conducting a study especially concerning the recruitment of patients.

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Topic: Cancer detection

Title: To determine the impact of training conference and the Toolkit for Texans on participant’s activities

By Casey P. Durand

Statement of Problem
In 2005, the Texas Cancer Council published its latest version of the Texas Cancer Plan, which is an evidence based plan to controlling cancer and reducing its overall impact on the state. It contains goals such as prevention, early detection and professional education, and within these goals are more concrete objectives and action steps for communities to take to achieve the broader goals.

To help health professionals be more adroit in implementing the plan, a “Toolkit for Texans” was developed to provide a concise series of practice based tools necessary to fight cancer from a public health perspective. Examples include finding and using appropriate statistics, media advocacy, and program evaluation.
Along with the Toolkit, a workshop was conducted to train potential users of the Toolkit. Along with the recently conducted workshop, several more will be conducted over the next year. However, as only one has been conducted, there is not yet any feedback from participants about how useful the workshop and Toolkit have been from a practical standpoint. Information is needed to help refine and adjust future conferences so they will be as relevant as possible.

**Specific Aims**
The primary goal of the practicum was to develop a survey to determine the impact of both the training conference and the Toolkit on participant’s activities several months afterward.

**Methods and Procedures**
The instrument was developed by first assessing the results of the initial survey taken by participants immediately following the conference. A follow up survey was crafted using a guiding framework of the initial survey, plus the theories of Diffusion of Innovations and Barriers to Innovation. At each stage of instrument development, feedback was received from the faculty member in charge of the evaluation, and also from staff members at the Texas Nurse Oncology Education Program. Further refinement was done via Cognitive Interviewing, a procedure of guided questioning of sample survey participants in order to assess survey clarity and meaning. Results from all forms of feedback were incorporated into the final product.

**Results**
The final result is a survey which has been improved through multiple levels of evaluation, and whose data can be used to adjust future conferences to better meet the needs of participants. Outside of the practicum, I will continue working with the project as we actually send out the survey and analyze the results in the coming months.

**Public Health Implications**
This project’s most distal implications are on the broad goals of cancer prevention and control, and its more immediate impacts are on the development of a well trained and equipped public health workforce. While the conference and Toolkit alone will not halt the spread of cancer, they will help communities organize themselves more effectively to implement the Texas Cancer Plan. Organization and coalition building are one the primary goals of both the Plan and the Toolkit, the idea being that
each community is in the best position to determine what strategies will be most effective to combat cancer in their respective areas. The survey developed as a result of the practicum will play a small role in assisting these professionals in being as well trained as possible.

Topic: Childhood obesity

Title: CATCH (Coordinated Approach to Child Health) Nutrition Plus

By Beth Wilkes

Public Health Significance
CATCH is a program that addresses nutrition, physical activity and tobacco prevention in schools (1). CATCH Nutrition PLUS intervenes and prevents child obesity. In 2001 38.3% of 4th grade students were overweight or at risk for being overweight (2). Child obesity has health impacts on the population and the economy.

Approach
Students from 3 control schools and 3 intervention schools in San Antonio, Texas participated in the 2 year study of 3rd graders. The control schools followed the regular CATCH program and the intervention schools participated in CATCH Nutrition Plus that educated students on obesity intervention and prevention. Baseline data, collected in August 2006, included height, weight, food survey questionnaire and a 24 hour diet recall. This information will also be collected at the end of the 2 year study. In May 2007, intermediate data was collected. Students took a food survey questionnaire and heights and weights were measured.

Findings
The results of this data are incomplete. Personal observations of the 24 hour diet recall included excessive calorie intake through juice and sweetened milk products.

Essential Services of Public Health
This study is designed to diagnose and investigate childhood obesity and inform stakeholders on tools for intervening and preventing obesity.

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Topic: Childhood obesity

Title: Childhood Obesity

By Maha R. Boktour

Background
Childhood obesity and overweight have become a serious health concern in the united state. Overweight children and adolescent are more likely to become obese adult. Childhood obesity appears to be associated with many health problems such as: (Hypertension, coronary heart disease, stroke, type II diabetes, sleep apnea and social discrimination) and theoretically is preventable. Obesity has a significant impact on US health care system. Therefore we thought to find ways to encourage children to healthy eating pattern and to encourage them to engage in appropriate amount of physical activity during school and avoid much sedentary time especially after school in Houston, Texas.

Approach and Findings
I did search on Center of Disease Control and Prevention web site I reviewed online scientific articles for childhood obesity. I got information about school districts in Harris County Department of Education. I tried to put together the taskforce, set timeline for meeting and get people input and getting them to commit.

It seems that Childhood obesity a significant public health problem in Texas. Now, in the process of writing a grant.

Essential Services of Public Health
Research for new insights and innovative solutions to prevent childhood obesity health problems.
Inform, educate, and empower people about childhood health issues.
This summer I completed my practicum at JOVEN, a non-profit organization whose mission is to “develop character and resiliency in children by providing them with innovative and exciting programs, as well as structured alternative activities that are designed to help them to succeed”. Upon completion of my MPH and MD degrees in 2008 and 2009, respectively, I will begin my psychiatry residency and then plan to sub-specialize in child and adolescent psychiatry. Given my career aspirations, I sought a practicum experience that would enable me to experience a community approach to working with at-risk youth while also understanding the administrative aspects of a non-profit.

To achieve its mission, JOVEN consists of four programming divisions: intervention, prevention, health education and victims’ services. Due to confidentiality concerns, I was not permitted to participate in counseling sessions. Therefore, I selected to work with the intervention division which works with a small group of students who have been identified by school counselors, parents and teachers. The importance of education and the pursuit of higher education, as well as the value of making positive choices, are strongly emphasized during these small group sessions. During my practicum I helped co-facilitate small group sessions with seventh grade students at Paige Middle School and also participated in summer programming with the intervention division. In order to experience the scope of JOVEN’s programs, I also participated in after-school programming at JOVEN’s Harlandale and Losoya locations. Collectively, my experiences with the intervention and after-school programming enhanced my understanding of how JOVEN actively pursues its mission. And some of the experiences contributed to my understanding of non-biological, community approaches to empower youth to move in positive directions.

1 JOVEN website (www.jovensa.org)
My primary reason for pursuing a Masters of Public Health is to better understand how to assess and address community needs from an administrator’s perspective and to develop the leadership skills and insight to eventually act as both a clinician and administrator in an underserved community. Hence, during my practicum with JOVEN I intended to seek out experiences that would foster my understanding of the administration of a non-profit organization. Unfortunately, these experiences were not as readily available as I thought they would be at the start of my practicum due to sporadic meeting schedules, time conflicts and non-responses to my inquiries. Although I did not have a plethora of administration experiences, I was able to observe a committee meeting and help write part of a grant to secure funding for after-school programming. Both of these experiences were very beneficial and significantly contributed to my learning.

JOVEN is currently in a transition phase due to a recent change in leadership and the fluctuation of grant funding. Consequently, some of my learning opportunities were hindered due to this transition. For example, I was not able to interview the CEO (which was suggested as an administration component of my practicum) because he was consumed with securing grant funding. And since my practicum was during a time of transition and restructuring for the intervention division, my role was not clearly defined at all times and my gifts were not fully utilized. Overall, my experiences at JOVEN enhanced my understanding of how a non-profit functions and how the organization attempts to serve its youth.

Topic: Cost analysis

Title: Diseases Caused by HPV: Costs of Treatment

By Sara Staggs

Public Health Significance
In early 2007, the governor of Texas issued an executive order mandating that 6th grade girls be vaccinated with Gardisil, the vaccine for the human papillomavirus (HPV), beginning Fall 2008. For a variety of reasons, the order was rescinded, but the debate on whether the vaccine should be required remains1. The cost of the vaccine is one of several concerns
expressed by people who are against mandating the vaccine. This cost analysis is designed to explore the impact on money spent on HPV in the long run.

**Approach**
I used databases from the library to locate research about diseases caused by HPV. I entered the lifetime risks, incidence rates into a table to be applied to the cost of treatment for each one.

**Findings**
Though this estimate should still be considered rough, preliminary calculates show a direct cost in savings of $178,184,714 in 2006 dollars if every 6th grade female in Texas were vaccinated this year. More work still needs to be done in that costs of treatment of some of the diseases (cervical cancer, for example) should be updated. Furthermore, utilizing recurrence rates will allow for a more sophisticated analysis, as well as increase the amount of savings, since only one lifetime occurrence is currently accounted for.

**Essential Services of Public Health**
One of the most essential services of public health is preventative care, and within this category lies vaccination. My project works to help defend the need for this type of preventative care. By demonstrating that the HPV vaccine is cost effective, the project makes the case that it financially makes sense to inoculate girls against the HPV virus.

1MacLaggin, Corrie. Perry's HPV vaccine order draws backlash from GOP. Austin American-Statesman; February 6, 2007

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**Topic: Disaster preparedness**

**Title: Advanced Disaster Life Support and International Health Security**

**By Satyam Nayak**

**Public Health Significance**
The Advanced Disaster Life Support course trains health professionals to be better prepared in time of a disaster. The project is designed to revise
and develop the existing curriculum to incorporate incident command and the national incident management system. The training will allow health professionals to communicate effectively in a disaster by using common lexicon. The health professionals include physicians, nurses, EMT, police, fire department, public health workers, pharmacists, and administrators. Another project I worked on investigated international health security and was presented in a PowerPoint to educate public health workers.

**Approach**
The Center of Biosecurity conducted a pilot training in Houston to set the baseline parameters for the course. We then met with experts in emergency medicine and disaster medicine to make the first set of revisions before the next pilot in Gainesville, FL. The revisions will be implemented and assessed after pilot number 2 and another round of revisions will follow. The international health security PowerPoint was presented at the World Health Day.

**Findings**
The final product for this project will be a current revised curriculum which will be used in the national training course, Advanced Disaster Life Support.

**Essential Services of Public Health**
Inform, educate, and empower people about health issues. This training program will educate health professionals on how to approach an all hazards disaster.

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**Topic:** Disaster preparedness

**Title:** Emergency Preparedness Practicum

**By Wendy Mey, DVM**

**Public Health Significance**
Hurricanes Katrina and Rita are classic recent examples of the impact these types of events have on us. The possibility of Pandemic Influenza is also an event that would have worldwide repercussions. Since we cannot prevent natural disasters, and are vulnerable to man-made disasters, we are
all at risk. So this is something that, at one time or another in our lives, will impact us all.

**Approach**
While several aspects of Emergency Preparedness were covered during the practicum, the main focus was preparing for a four-day Pandemic Influenza Preparedness Exercise. My main role was in compiling a Pandemic Influenza Preparedness Planning Resource Guide and CD. Using a similar publication as a template, I searched websites, including the CDC, DHS, WHO, Texas DSHS, Ready.gov, and USDA, for information, checklists, procedures, and so forth.

**Findings**
My final product is “Pandemic Influenza Preparedness Planning Resource Guide” and a CD that includes the binder contents, as well as additional resources. The binder and CD have been distributed by Texas DSHS, Region 8, Emergency Preparedness, to other departments and allied agencies throughout the 28 counties that comprise Region 8.

**Essential Services of Public Health**
This project primarily addressed Emergency Preparedness for a Pandemic Influenza Response. Other preparedness exercises in which I participated during this practicum included a Communication Interoperability Exercise and a Hurricane Preparedness Exercise.

Title: Drug adherence

By Lokesh Shahani

I started with my practicum under Dr. Thomas Giordano at Baylor College of Medicine from 21st May 2007. I initially started slow as I had to go through various online courses and a whole lot of orientation courses as my workplace was a part of Department of Veteran Affairs. But I must say that these courses helped me a lot understanding the whole data privacy and security issue which revolves around such a prestigious institution such as the VA.

My responsibilities at the practicum involved medical chart reviews and data abstraction. I got started with this task by initially forming abstraction
sheets for all types of medical care settings such as Inpatient setting, Outpatient setting & Emergency Room setting. Dr. Thomas Giordano guided me a lot at this stage stressing on fields he felt were important in determining as well as predicting adherence to medical care in newly diagnosed HIV patients.

One thing which really impressed me in this practicum under Dr. Giordano was the independence regarding my working plan and time. This made me more responsible towards my work and helped me do better.

I started reviewing the medical charts for the hospital setting and used the EPIC (the online medical record system for Harris County Hospital District). After completing the chart reviews for the Inpatient setting I started with the chart reviews for outpatient setting. I had to order for the charts at Thomas Street Clinic and physically review them. This made my work a bit difficult as the charts were not so well organized and sometimes found them confusing to abstract. I had to go back and forth with the charts and the online records just to confirm the data. This made my task a bit more tiresome.

We had weekly meetings and once I started attending them I felt very much like a part of the research team. I got to learn the smallest details which go in to run a prospective study specially the difficult or rather funny situation where the follow ups were done. I was really impressed by the dedication of the other team members towards this project.

It was a great experience working with Dr. Giordano and I would like to be associated with this project and play my small part in it.

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**Topic: Emergency care**

**By Mary Schuwerk**

For my practicum, I worked with the Houston-Galveston Area Council to assess emergency trauma care and response within Harris County and 12 other surrounding counties over a three year time span (2004-2006). My project was to distribute a survey to hospitals and EMS providers, collect surveys, enter results, and report the preliminary results to the
Emergency/Trauma Care Policy Council. The report was to illustrate some of the current trends within our community’s emergency response system.

**Public Health Significance**

Emergency rooms within the Houston-Galveston area are seeing an increase in demand, and as a result, are becoming over-loaded and overcrowded. In order to help alleviate some of the strain on these hospitals, it is important to first evaluate the source(s) of the demand and the obstacles hospitals and EMS providers encounter in providing efficient and effective emergency healthcare services. Having a well-organized and efficient emergency response system within the community is a matter of life or death for its members, and it is vital steps be taken to address the present ER overcrowding within this area.

**Approach**

Members of the Data Committee and I met to revise and agree upon two surveys that were administered. One survey was sent to EMS providers and selected fire departments within the 13-county region. The other survey was mailed to hospitals within the same region. A month long period was given to participants for completing and submitting the survey, and three weeks were devoted to “follow-up” for the request of additional information as needed. Survey data was entered when received into an Excel spreadsheet. A preliminary report was given to the Emergency/Trauma Care Policy Council on July 27, 2007.

**Findings**

For the final product I reported to the Emergency Trauma Care Policy Council on some findings from each of the collected surveys. Participation in the project will continue after the completion of the practicum.

Thus far the data shows an increase in demand on the region’s emergency healthcare system in 2005 and declining some in 2006, but additional surveys could possibly alter this presently seen trend. Additional follow-up is needed and will continue to encourage more participation. Further data analysis will also be performed.
Essential Public Health Services
Two essential public health services my project addressed were: one, assuring quality and accessibility to health services; and two, preventing injuries.

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Topic: Endometrial cancer

Title: The Role of Endoplasmic Reticulum Stress Protein GRP78 in Endometrial Carcinoma

By Shannon N. Westin, Russell R. Broaddus

Public Health Significance
Endometrial cancer is the most common gynecologic cancer in the United States and the fourth most common cancer in women. Most cases are early stage and curable, however, a subset is aggressive and resistant to surgery/chemotherapy. Identification of mechanisms of resistance has the potential to improve survival in this disease. GRP78 is a protein involved in the endoplasmic reticulum stress pathway. It is over-expressed in multiple solid tumors and associated with chemoresistance. We sought to describe the expression of GRP78 in endometrial carcinoma and determine the clinicopathologic characteristics associated with level of GRP78 expression.

Approach
We obtained normal and endometrial cancer specimens from the Gynecology Tissue Bank. RNA was extracted and analyzed by quantitative polymerase chain reaction. Demographic, clinical and pathologic data was collected from the medical record. Statistical analysis was performed using Mann-Whitney and Kruskall Wallis tests.

Findings
Expression of GRP78 was higher in normal endometrial specimens compared to cancer. Among cancer specimens, GRP78 expression fell with increasing grade and stage. The loss of GRP78 expression was associated with more aggressive disease. Further study of GRP78 in the endometrium is needed to understand the significance of this protein in endometrial cancer.
**Essential Services of Public Health**
This project addressed the core public health function of assessment.

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**Topic: Genetic testing**

**Title: What Women with Ovarian Cancer Think and Know About Genetic Testing**

By Robin A. Lacour, Karen H. Lu

**Public Health Significance**
Women with BRCA mutations have a 20-40% lifetime risk of ovarian cancer, a fatal gynecologic malignancy. Poly (ADP-ribose) polymerase (PARP) is an enzyme involved in DNA repair. PARP inhibitors, which have therapeutic potential for BRCA+ patients, are in clinical trials for ovarian cancer. Anticipating this agent, we address acceptance and willingness to undergo genetic testing in ovarian cancer patients.

**Approach**
A questionnaire regarding knowledge and willingness to undergo BRCA testing was developed. Ovarian cancer patients seen at MDACC were asked to complete the anonymous questionnaire. Data was analyzed using SPSS software.

**Findings**
In anticipation of treatment that may directly affect BRCA ovarian cancer, we found that 56% of respondents were not aware of BRCA testing, specifically those with no more than high school education. The high school-educated were less willing to pay for testing than those more highly educated. There was no difference between numbers of patients who would have genetic testing if it personally affected their care, compared to solely affecting their family.

**Essential Services of Public Health**
This project primarily addresses the assessment function of Public Health. Information was collected, assembled and analyzed to make it available as health information that may affect patient outcome.

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Topic: Genetics

Title: Training Interventions and Genetics of Exercise Response (TIGER) Study

By Ian Turpin

The Training Interventions and Genetics of Exercise Response (TIGER) Study began in 2003 with the joint goals of introducing sedentary college-age individuals to regular exercise and identifying genetic factors that influence physiologic response to exercise training. The study is ongoing and targeted for first phase completion in July 2008.

Study subjects undergo 30 weeks (2 semesters) of exercise training, 3 days per week, for 40 minutes at 65-85% of age- and gender-predicted maximum heart rate. Measures of body size/composition, heart rate, blood pressure, plasma analytes, and psychosocial factors are obtained on all participants three times during the study.

While recent studies have indicated that students tend to gain weight during their university years, more than 86% of the subjects who completed the TIGER Study lost or maintained their weight (± 2.2 kg) and less than 14% of subjects gained more than 2 kg. Preliminary results of the TIGER Study suggest that young adulthood may be an opportune stage to target an exercise intervention. Upon completion of the study, analysis of genetic factors influencing exercise response will be performed.

My practicum experience involved the development of an exit questionnaire to survey the responses of previous participants, to distribute the questionnaire to all 425 members of the most recent cohort, and to analyze and summarize the data so that the study team may learn more about the reasons why subjects stayed in the study and were successful, or alternatively why they may have dropped out. The questionnaire did not directly address goal setting, self motivation etc. as these concepts are already tested as part of the study protocol.

My practicum duties are ongoing. The questionnaire is complete and was created using Verity Teleform software which will allow automated data entry. It has been distributed to the entire cohort along with stamped return addressed envelopes. Responses are starting to come in and when a substantial amount has been received, analysis will begin. It is hoped
that we will have enough responses to create a useful analysis that will help in shaping the TIGER Study as it moves into its second phase, and to create a publishable paper summarizing the results.

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Topic: Health care delivery

Title: Analysis of Primary Health Care Delivery in Costa Rica

By Sherrie Wise

The healthcare system of Costa Rica has been called possibly the best in Latin America. With approximately 90% health care coverage, Costa Rica boasts of its system’s high regard for solidarity, equality, and the human right to receive health care. This analysis attempts to look specifically at primary health care provision in Costa Rica. Methods for analysis include research of existing literature, personal observation of primary care facilities- in urban and rural locales, as well as interviewing various members of the health-care and civilian communities.

Well-know to the majority of its inhabitants (Costa Ricans and foreign national immigrants alike) is the Caja Costarricense de Seguro Social (CCSS) (Seguro Social) which offers public health care to citizens as well as non-citizen residents. CCSS was originally founded in 1941 and underwent significant changes in the 70’s and 80’s which socialized health care and made coverage “universal”.

Today, Seguro Social consists of three main levels of care (and a 4th consisting of specialized rehabilitation services): The primary level of care is provided by the “ Equipos Básicos de Atención Integral en Salud (EBAIS)” and focuses on basic primary care, prevention, and promotion. Most EBAIS teams contain 1 general practitioner, one auxiliary nurse, one pharmacy technician, and one primary care technician. Vaccines, medical exams, asthma treatments, pap-smears, etc… are provided by the EBAIS teams, which are strategically located in clinics throughout the country. One EBAIS team is allocated to “sectors” of approximately 4,000 – 5,000 inhabitants. In highly populous urban areas, two to four EBAIS can be located in the same clinic building, referred to as a “nucleo”. The clinics also house a pharmacy and dental office. Approximately 900 EBAIS teams service 87% of the healthcare needs of Costa Rica. The remaining 13% is
divided among the second and third levels of care—hospitals, and specialists respectively.

The Primary care technicians (Tecnico de Atencion Primaria (ATAP) are a critical component of the first level of care. These technicians provide ambulatory services and theoretically visit each home at least yearly. The ATAPs collect written record of each inhabitant, including name, affiliation status, vaccination record, blood-pressure, blood sugar measurement, pap-smear result history etc… and provide prevention and promotion information as well. The ATAPS also provide in-home child vaccinations weekly. When needed, referrals are given to the local EBAIS clinic.

Problems with the EBAIS arise from lacking technology. No appointments are taken by phone, thus patients must arrive early, usually at 5:30 AM, stand in line, and wait to be given an appointment time to return. Appointments are often given for the same day, though the inconvenience discourages use. Also, the pharmacy hours, which recently changed, are now restricted to half days. There is no computerized network among and between the EBAIS clinics, though one is said to be implemented soon. When speaking with patients, quality of care received mixed reviews. Some speculated that EBAIS physicians also working in private practice indirectly encourage use of private health-care by providing poor public service. The supposed cause: private care increases earnings.

Another issue, and possibly the most critical, is the long wait time when referred to the third care level— the specialists. Said wait times have been known to exceed 6 months – 1 year, depending on the treatment required.

Title: “Health Literacy in the Patient’s Served by the Harris County Hospital District”

By J. Travis Gossey

Quality health care depends upon clear communication between clinicians and patients. Given that a patient is liable to forget information that has
been told to them, it would make sense to then provide them with written information as a memory aide.

Unfortunately, providing written material may not help a significant subset of a provider’s patient population. To understand health information, patients need to have adequate health literacy. Health literacy is a subset of general literacy that specifically applies to tasks that relate to health and attending to health care needs.

I worked on a project to try to improve the quality of the written information that HCHD provides to patients. Knowing the level of health literacy of the target population is key to developing better materials. To answer this question, I developed a brief survey that focused on patients in the HCHD. The tool consisted of three separate components. The first part of the instrument was a basic survey, which provided with basic information about the study participants. Next, a tool to assess a patient’s basic reading level was used. The instrument used was the REALM. The real provides a general assessment of grade level broken down into groups such as less than 3rd grade, 4th-6th grade, etc. If a patient had sufficient reading capacity (greater than the 3rd grade) then a final instrument was used to assess their health literacy. The S-TOFHLA provides an assessment of a patient’s ability to read and follow medical instructions, such of pill bottles, test preps, and appointment slips.

I am currently working on deploying the survey and so far have 100 completed. Before I analysis the data, I hope to have about 400 total completed.

Topic: HIV needs assessment

Title: Houston Area HIV/AIDS Needs Assessment Practicum

By Rachel A. White

Public Health Significance
HIV/AIDS is a disease that affects thousands of people living in the Houston area. According to the 2006 Epidemiological Profile “at the end of 2004 a total of 17,168 people were living with HIV/AIDS in the Houston HSDA, more than half 58% of whom had an AIDS diagnosis.
There were 800 newly reported HIV cases, and 942 new AIDS cases for the year.”

**Approach**
The Ryan White Planning Council wants to discover any difficulties persons living with HIV/AIDS in the Houston area have experienced in entering and maintaining care since their diagnosis with HIV. The goal of the organization was to reach 800 people living with HIV/AIDS in the Houston Area. We wanted to reach those both in and out of care in order to get a more complete picture of barriers to care.

I worked with the Planning Council to administer a nine page survey to those living with HIV/AIDS. A team of 3 to 4 people went out to different survey sites located throughout the Houston Area during the week. We went to clinics, rode with SEARCH van to reach the homeless population, and community health centers funded by Ryan White Care Act Funds.

The survey contained a variety of questions. The Planning Council wanted to know when the participants were diagnosed with HIV, where they received their diagnosis whether it was at a public clinic or private doctor and if they were referred to other services at time of diagnosis. These questions were used to assess their entrance into care.

The participants were also surveyed about their access to care since diagnosis. Participants were asked if they had any difficulty attaining home health care, HIV/AIDS medications, case management services, psychiatric counseling services, and rehabilitation services among others to learn about their maintenance in care.

**Findings**
The final product will be completed by the Ryan White Planning Council. The 2008 Houston Area HIV/AIDS Needs Assessment will be completed at the beginning of the next year. They are currently completing data collection and data entry.

I will give the organization feedback on its survey administration methods. I will inform them which aspects of survey administration worked and which aspects need improvement.
Essential Services of Public Health
The essential service of public health that my project primarily addressed was evaluation.

Through administration of the surveys and ultimately analyzing the information compiled, the Planning Council will evaluate unmet needs, barriers to entering and maintaining care post HIV diagnosis for those living with the disease in the Houston area.

Topic: HIV transmission

Title: Barriers in the implementation of prevention of mother-to-child transmission programs: Data collection activities needed to bridge the gaps

By Priyanka Desai

In Zambia, the prevalence of HIV among pregnant women is 19% (MoH, Zambia ANC Sentinel Surveillance 2001/2002) and without any intervention there is a 15-45% chance of transmitting the virus to their baby during pregnancy, labor, delivery and breastfeeding (De Cock, 2000). In 1999 the groundbreaking results of the HIVNET 012 trial conducted in a breastfeeding population in Uganda showed that a single dose of nevirapine administered to HIV positive mothers at the onset of labor and to the neonate within 72 hours of birth reduced the rate of HIV transmission by almost 50% (Guay, 1999). The efficacy, low cost and simplicity of the intervention proved hopeful for the prevention of mother-to-child transmission (pMTCT) of HIV in resource-poor settings with high HIV prevalence (Albrecht, 2006). With foreign aid the Zambian government expanded pMTCT services across the country and also integrated services into maternal and child health services (MCH). Ninety-three percent of pregnant women in Zambia attend antenatal clinics at least once therefore the opportunity to intervene is transparent. Unfortunately many women are slipping through the cracks. Exacerbating this problem is that more than 50% of pregnant women in Zambia give birth at home. Seventy percent of these women are from remote, rural areas who deliver outside health facilities in the presence of untrained traditional birth attendants (TBAs). Eighty percent of these women do not seek post-natal care (ZDHS 2001/2002). With very few rural women
participating in the cascade of events deemed necessary to prevent MTCT (Stringer, 2005) identifying the barriers to extracting the full benefits of this intervention is warranted.

Review of the literature revealed the following barriers 1) low PMTCT service coverage and access 2) lack of knowledge about MTCT and HIV transmission, prevention and treatment among rural residents 3) low uptake of services and adherence to antiretroviral (ARV) drugs for PMTCT and 4) lack of human resources and training to deliver PMTCT services to remote areas. Evidence from Cameroon suggests that training of TBAs in the provision of PMTCT services, clean and safe deliveries and HIV education has improved maternal and child health outcomes, increased HIV testing uptake and adherence to ARV drugs and alleviated human resource shortages in the health sector (Wanyu, 2007; Welty, 2005). Replicating such a program in Zambia could yield similar results but there are several data collection activities that must be completed prior to implementation. One such activity is to conduct a cross-sectional study using structured interview questions and focus group discussions among TBAs in the rural communities to study the knowledge, attitudes and beliefs they have surrounding HIV and mother-to-child transmission, prevention and treatment. There are no reported studies of this sort from Zambia thus collecting this data will help to identify the gaps in TBA knowledge, attitudes and beliefs about HIV and MTCT that could play an important role in their willingness to deliver PMTCT services and the quality of services they deliver. The aim of the study would be to better understand the educational and training needs of the TBAs, refine the content of educational materials and develop culturally sensitive solutions to overcome these barriers.

Topic: Hospital waste management

Title: Creation of an Assessment Tool for the Comprehensive Evaluation of Hospital Medical Waste Management Programs in Developing Countries

By Scott Patlovich
Inherent to the delivery of health care is the generation of potentially infectious waste materials. If these wastes are not handled and processed appropriately, they can represent an infection risk to health care workers, waste handlers, and the public. Certain types of potentially infectious wastes, such as contaminated needles and other sharps, also exhibit the ability to create a portal of entry for infection through punctures or cuts, representing an even greater public health concern. As a result, adherence to proper medical waste management practices, such as those set forward by the World Health Organization and/or national or local governments, is imperative. This practicum project will involve the creation of an assessment tool for the comprehensive evaluation of medical waste management practices in the health care setting in developing countries. Based on experience from a recent evaluation of hospital medical waste management practices in the Republic of Trinidad & Tobago, the generated assessment tool will be applied to a site visit at a hospital in Mongolia. This tool will allow for the identification and comprehensive investigation of types, volumes, and sources of potentially infectious wastes, as well as the handling, transportation, storage, and disposal in hospitals. The discussion will then center on the currently employed means of waste disposal observed during the assessment, the possible inherent risks, and a list of possible interventions that might be considered to address any issues identified. Comparison of the Mongolian hospital visit findings to the WHO, national and local government regulations, as well as previous findings from the assessment in Trinidad & Tobago will be conducted. Post-assessment improvements to the tool will be made if necessary, with the goal of producing a product which could be used for similar future assessments. All assessment findings will be reported back to the hospital at the time of evaluation and again in writing to provide a collegial, non-regulatory review of the findings and suggestions for improvement.

Topic: Liver cancer

Title: Initiating a case-control study in Egypt

By Fritha Morrison

Public Health Significance
Egypt has high rates of hepatocellular carcinoma (HCC), and a unique group of prevalent risk factors. As life expectancies increase and disease patterns change, it is important to assess the etiologic factors causing the greatest burden in new HCC cases.

**Approach**

I helped to initiate a study by applying for IRB approval and creating and pilot-testing the questionnaire to be used. It was important to design questions appropriate for assessment that were also culturally sensitive to this primarily conservative, Muslim population. As late-stage diagnosis is common with HCC, a succinct questionnaire was necessary. After thorough discussion with doctors from Tanta, and finalization of the questionnaire, I trained an Arabic-speaking doctor to interview participants and then conducted initial pilot testing through interviews with newly diagnosed HCC cases at the cancer center.

**Findings**

My final product included a questionnaire and forms for tracking and extracting diagnostic information on HCC cases. Pilot testing has begun and will continue once I leave. So far, participants have understood the questions, and are able to sit through the interview, which normally takes under 20 minutes.

**Essential Services of Public Health**

Research and monitoring.

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**Topic: MRSA**

**Title: Assessment of Methicillin Resistant Staphylococcus aureus (MRSA) Educational Materials**

**By Heather Atteberry**

**Public Health Significance**

MRSA is a growing concern due to an increase incidence in the community, especially in athletes, schools, childcare facilities and gyms/spas. A review of current MRSA-related educational materials is needed to determine which target audiences the Texas Department of State Health Services (DSHS) should focus.
Approach
An assessment matrix was created to rate MRSA-related educational materials based on technical accuracy, readability, appropriate target audience, and other variables. Interviews were conducted with community members and a short written report identifying target audiences and subject areas for which no suitable MRSA educational materials exist was prepared and presented at a statewide infectious disease workgroup hosted by the DSHS.

Findings
MRSA-related educational materials with a rating of 3.0 or higher (scale 0-4) were recommended for use by the DSHS. From the community interviews, it was found that physicians, workplaces, spas/salons, K-12 schools, childcare facilities and universities did not have sufficient educational materials. Recommendations were made to DSHS to develop the materials along with general suggestions for all materials.

Essential Services of Public Health
The practicum encompassed two essential services of public health, to inform, educate and empower people about the health issue MRSA, and to mobilize community partnerships and action to identify and solve the MRSA health problem.

Topic: Nutrition in AIDS

Title: Thomas Street AIDS clinic: A Brief Nutrition Synopsis

By Lt. Basil Aboul-Enein, MS, USAF, BMSC

Public Health Significance
Infection with HIV and the development of AIDS has made a considerable impact on both domestic and global health as well as social and economic outcomes.

Aims/Objectives
Nutrition is intrinsically linked to immune function. It is well documented that provision of proper nutrients can support an already compromised
immune system and that lack of even one essential nutrient can have especially deleterious effects. The ability to achieve and maintain a healthy diet can also make a significant impact on one’s quality of life.

**Methods/Approach**
Nutrition experts set out to achieve nutrition security and manage nutrition related complications of HIV infection and multiple aspects of conditions initiated by HIV infection. The use of proper nutrition counseling guidelines focused on people living with HIV infection and AIDS with the aid of up-to-date research articles intended to investigate new and other nutrition based approaches. Tools such as the Harris Benedict Equation, protein requirement index and micronutrient recommendations were used to determine caloric and overall nutrition intake.

**Results/Findings**
Dietetic professionals concluded that an individualized nutrition care plan is an indispensable element of the medical management of individuals with HIV infection and AIDS.

**Public Health Implications**
Weight loss, wasting, and malnutrition continue to be common problems in HIV, despite more effective antiretroviral medications, and can contribute to HIV disease progression. Nutrient requirements are highly individualized for people living with HIV infection.

Before determining a person’s nutritional needs, we must take into consideration the individual’s clinical condition, metabolic rate, activity level and viral load among other factors.

**Services Addressed**
The role of a well balanced diet becomes even more important not only for basic long-term survival but also for quality of life in Public Health.

**Project and Experiences**
The project practicum at Thomas Street clinic began during the last week of May and ended June 30th. Registered Dietitian, Terry Fox, introduced the all aspects of the clinic from social work to Medical care. The first and second week focused on training towards proper nutrition counseling. As weeks followed, the task to investigate recent updated nutrition articles
relating to HIV infection and to incorporate recommendations, if any, into the program.

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Topic: Program evaluation

Title: Cerrahpaşa practicum experience

By Celia Katrine Naivar

I came to Cerrahpaşa School of Public Health/Hospital with no firsthand knowledge of global public health and little information about Turkey’s system. My goal was to increase my knowledge and to accomplish the following objectives:

• Determine what type of infrastructure exists for public health.
• Assess what is currently being done for early detection.
• Assess any prevention programs.
• Assess what roles doctors and patients have in treatment.
• Investigate how many cases are registered.
• Learn what public health initiatives are in place and about their level of success.

Through multiple meetings, gladly scheduled by my preceptor Dr. Ethem Erginöz, with health professionals on the vast campus of Cerrahpaşa, I was able to accomplish each objective to its full extent. A sample of the meetings Dr. Erginöz arranged included: time with a breast cancer surgeon, the head of Cerrahpaşa’s smoking cessation program, and many other health professionals. In addition, each professor shared comprehensive information about their field of expertise including health promotions, epidemiology, administration, maternal and child health, and occupational health.

I walk away from the experience having a firm base of knowledge about the public health system of Turkey, particularly the mega city of Istanbul. A brief overview of new knowledge about each objective is listed below:
• Public health is mainly taught to future physicians and is practiced within the hospital facilities.
• Turkey, especially Cerrahpaşa, is well equipped with all early detection tests and encourages their utilization.
• Cerrahpaşa, as well as other government facilities and private hospitals have smoking cessation programs for the prevention of lung cancer and other thoracic diseases.
• Doctors and patients have discussions on treatments, and patients are far better informed on diseases and their progression than they were ten years ago.
• Case registration for diseases, especially cancer, is in its infancy for the nation, but comprehensive hospital information is recorded.
• Programs that are in place for public health are successful (i.e. smoking cessation success rates are 33 percent for one year in both sexes) and are in need of more staff.

My time at Cerrahpaşa and experience in Turkish hospitality has not only sparked my interest in Turkish public health, but has also initiated a desire in the Cerrahpaşa faculty for more collaboration with UT Health Science School of Public Health. Cerrahpaşa is the top public health school in Istanbul and one of the finest in the region. They are happy to share their facility, data, and global experience with any of our faculty and hope to have more practicum students from our campus in the future.

Many foreseeable benefits exist for both sides, including but not limited to, the Global Health Concentration having another site for practicum experiences and data for thesis purposes. Our students at the School of Public Health can benefit much from such an experience, as well as, students and faculty potentially visiting from Cerrahpaşa. This practicum has opened my eyes the way no classroom course could ever do, and there is no doubt that my public health career will be richer because of Cerrahpaşa and its faculty.

I would like to thank the following Cerrahpaşa professors for their time: Prof. Dr. Ayşe Kaypmaz, Prof. Dr. Zuhal Baltaş, Doç. Dr. Ethem Erginöz, Doç. Dr. Mehmet Sarper Erdoğan, Yrd. Doç. Dr. Selçuk Köksal, and Yrd. Doç. Dr. Ahmet Ayhan Yüceokur.

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Topic: Radiation

Title: Analysis of MDACC Radiation Dosimeter Data

By Jennifer Moffett

Public Health Significance
Studies link chronic exposure to high doses of radiation with cancer and genetic effects. Exposure can occur in one of three ways: contamination of skin with radioactive materials, uptake of radioactive materials by ingestion or inhalation, or irradiation by emissions from radioactive materials or radiation producing machines. As a preventative measure, the National Council on Radiation Protection and Measurement (NCRP) created exposure limits based on the assumption that any radiation exposure produces some harmful effect. These exposure limits were used to formulate regulations by many federal and state agencies, including the Occupational Safety and Health Administration (OSHA) and the Department of State Health Services (DSHS).

According to the regulations, if an employee is likely to receive a dose in excess of 10% of the occupational exposure limits in a year, the employer is required to monitor their exposure and shall supply and require the use of individual monitoring devices. In order to comply, M.D. Anderson has published a Radiation Safety Manual which contains information on occupational exposure to radiation sources and identifies individuals requiring monitoring for potential radiation exposure. However, in recent years, the program has evolved into monitoring perceived risk instead of monitoring those who have actual risk. The purpose of this project was to identify the areas where M.D. Anderson has an actual employee exposure risk and to evaluate the current program’s effectiveness in meeting the institution’s regulatory obligations.

Approach
A meeting was assembled with the radiation safety personnel to obtain background information on the program and procedures relating to the program. Data from a web based database was then downloaded by specific ‘series codes’. The data was organized, duplicate entries were deleted and individuals with results exceeding 10% of the occupational dose were identified. Different trends in the data were then analyzed.
Findings
Part of a successful health and safety program is ensuring that the benefits of the program are worth the cost of the program. The radiation dosimeter program at MD Anderson has been growing each year and has reached a level that is very costly and difficult to manage. This data analysis helped us to identify the actual risk to employees, which is very low and limited to three departments. The findings will ultimately result in a reduction of dosimeters distributed to a level that is less costly and easier to manage. Radiation safety personnel will be able to collect the dosimeters instead of relying on others to collect and return them, resulting in less monetary waste from unreturned dosimeter charges. At the same time, this program reduction will not impact the institution’s regulatory obligation to monitor the employees expected to receive 10% of the occupational exposure limits.

Essential Services of Public Health
This project primarily addresses the ‘assurance’ service of public health. The policy was already in place and this project was an attempt to evaluate the effectiveness of the program.

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Topic: Service learning

By Adebola Adedeji

This project was a medical mission trip to three rural townships in Nigeria, Ibadan, Ile-Ife and Oke-Imesi. Two physicians and a nurse practitioner from San Antonio offered screening for basic diseases under the umbrella of a benevolence organization (Abundance Ministries) in an effort to evaluate the health needs of the populations. The organization serves widows in Nigeria through the provision of aid in the form of food items, money and essential medicines.

The participants in the medical trip were on average sixty year old African women of low to extremely low socioeconomic status. Their occupations ranged from petty trading to farm work and most were uneducated.
Specific Aims
The aim of the program is to provide medical services free to these widows on a yearly basis. On this trip, the physicians wanted to determine what health problems are peculiar to them and to the region in general, and to use this information in the design of future interventions. Also to provide health education, advice and medicines for the treatment of the most common health conditions encountered.

Method of Intervention
Mini clinics were set up in pre-arranged locations in the towns visited. All participating and supporting personnel were volunteers. A triage table was set up manned by nurses. At this table, blood pressure, random blood sugar and weight measurements were obtained and noted on a small sheet of paper. Women were then sent up to three tables/rooms with the paper in hand to consult with the doctor/ NP one at a time aided by a translator. Diagnosis and prescription were noted on the paper and patients moved on to the medication dispensing unit. This unit was manned by a pharmacist and two or three other technicians. Drugs were dispensed with instructions and the paper retained for record purposes.

Eye/reading glasses were also given to those who complained of inability to read.

Results
The trip was a resounding success with a total of nine hundred and four (904) patients being seen. The predominant condition encountered was hypertension (41.7%). Generalized body aches and pains, arthritis, impaired glucose tolerance, skin conditions were also encountered. The oral health of the majority of the participants is poor and would require at a minimum some form of gross scaling before oral hygiene instructions would begin to make some sense.

Public Health Implications
Health education on these common conditions should be instituted and increased. Most of the women diagnosed with hypertension were unaware of their conditions and had not ever had their blood pressure checked. Monthly or biweekly programs to address this would greatly benefit the population.
Essential Services Addressed
Provision of medical care to patients, link individuals who have a need for community health services to appropriate community and private providers by referring to the health centers and informing them of their health conditions. As a follow up, the organization also provides biweekly medical clinics in which blood pressure is measured and medications are refilled.

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Topic: Substance abuse

Title: Substance Abuse Related Deaths: An Overview of 2003-2006 Cases at the Harris County Medical Examiner

By Stacy Ann Drake

Public Health Significance
One of the goals of the Healthy People 2010 is to reduce the number of drug related deaths. This is significant to the public health and safety of the community within Harris County because by identifying demographic and other variables prevention strategies can be developed and implemented to target populations. Demographic and other specific variables were identified and described.

Approach
An access database was created from cases queried from JusticeTrax using the following key terms in both cause A and B of death certificates in all age ranges and all manners of death (natural, accident, suicide, homicide and undetermined): “tox”, “toxic”, “toxicity”, “alcohol”, “fetal”, “intrauterine”, “combined effects”, and “ethanolism”.

A four-page tool was developed to collect data to aid in the gathering of information in a systematic manner by abstracting from available information.

Findings
Presentations regarding the practicum will be conducted at the practicum site, Suicide Prevention Coalition group and an abstract submitted for poster board presentation in October.
The final project will result in a scientific publication.

**Essential Services of Public Health**
This practica provided hands on experience in the core public health functions, assessment (assemble, gather data), policy (mobilize community partnerships to identify and solve public health/safety concerns) and assurance (to assure constituents that the services necessary to achieve agreed upon goals are provided).

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**Topic: Substance abuse**

**Title: Health Resources Available for Intravenous Drug Users in Dar es Salaam, Tanzania**

**By William Lopez**

**Public Health Significance**
HIV can spread rapidly among injection drug users due both to an increase in high-risk sexual behaviors and a tendency to share injection materials. Further, the problem of HIV spread among injection drug users is a politically-charged public health issue, as interventions such as needle swapping and distribution are met with opposition by governments that interpret such interventions as an acceptance of the drug culture. In Dar es Salaam, Tanzania, the problem of HIV spread among injection drug users is particularly dangerous due to a high prevalence of HIV in the population and to recent cultural shifts that allowed for a sudden increase in injection drug use.

This practicum was an attempt to understand the range of services provided to intravenous drug users by NGOs in Dar es Salaam, especially in regards to HIV prevention.

**Approach**
Contact information for NGOs in Dar was obtained from a list of organizations that participated in an AIDS Day Dissemination Seminar in 2006. Interviews with NGO staff were arranged by phone and conducted face-to-face in order to obtain information about the services provided by the NGOs for which they work.
Findings
No NGOs were found that directly addressed the spread of HIV among injection drug users. Many interviewees reported that the problem was largely rooted in the conventional conception of drug addiction as a moral (rather than a biological) problem that requires a corresponding moral solution.

Findings will be compiled into a report and presentation that may be used to plan an intervention.

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Topic: Tuberculosis

Title: My experiences in Tuberculosis control related to my practicum:

By Sachin Kamble

Public Health Significance
Before signing up for my practicum, I always knew I wanted to do it in the field of infectious disease. As a physician, I trained and specialized in this field. My experiences included seeing patients while at the same time, discussing cases with other peers regarding ID. I was happy to be able to serve my practicum at the Department of Health and Human Services- Tb control division with Dr. Abramsky and Joan Taylor. I knew Tuberculosis had a very important public health significance because the world was still trying to contain this particular disease. Tuberculosis rates have been on the rise worldwide with the advent spread of AIDS (especially in sub-Saharan Africa and southern Asia). Couple this prior fact, with the increase in ease of global transportation, one could conclude that Tb control needs to be investigated, for eradicating this disease would take a detailed approach. During my practicum, there was an incident in the news involving an airline passenger with a resistant form of Tb on a plane. It was refreshing to see media attention being drawn to Tuberculosis, however, at the same time, it only confirmed the fact that many in society were clueless to this pathogen. If awareness isn’t raised to this issue, Tuberculosis will never be eradicated. It must be also noted that the increased urbanization and immigration, particularly in the United States poses a problem.
**Approach**
My approach was to observe the way the Houston Tb control division was run. I wanted to observe every angle, from the administrative side of processing cases, to the field side of venturing off and interviewing suspects. I was able to observe how contact investigations worked first hand from actually riding with employers of the Tb control division. An interesting point to note was the fact that I was able to observe the DOT program, which many countries are starting to utilize to help eradicate Tb. DOT, or Direct observational therapy is a method where somebody employed at the Tb control division physically drives to a case who has Tb and watches him/her take the required medication. I then decided to look at the subject of compliancy, which is a huge hurdle in health today. My main aim was to observe other patients being interviewed who did the DOT program was not aimed at them and see if they were being compliant. Numerous places that myself and others on the team visited included homeless shelters, nursing homes, and private residences.

**Findings**
My findings were that DOT programs were essential in a successful Tb eradication/control program due to compliance related issues. (Cases who were not assigned DOT were generally non compliant and needed supervision). I concluded that since the treatment of Tb consistently of a long term regimen of medication, it was crucial that every cases would be assigned a DOT worker (if funding allowed) due to the nature of the way Tb is spread.

**Essential Services of Public Health**
The 2 essential services of public health my project primarily addressed were:

1.) Preventing epidemics and spread of disease (Tb)
2.) Assuring the quality and accessibility of health services (DOT programs)