Public Health Practice

Stories from the Field
The University of Texas School of Public Health
Student Practicum Experiences
Summer 2012 - Environmental & Occupational 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 eighth-edition e-magazine showcases student practicum experiences throughout the Summer 2012 semester. (Prior semesters may be accessed through the Practicum e-Mag link, on the Office of Public Health Practice website.)
# Practicum Topics

Serving Size: 1 Practicum per Student  
Servings per e-Magazine: 8

<table>
<thead>
<tr>
<th>Hours per Week per Student</th>
<th>Approximately 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Campuses (Houston)</td>
<td>1</td>
</tr>
<tr>
<td>Division</td>
<td>1</td>
</tr>
</tbody>
</table>

### Environmental & Occupational Health

<table>
<thead>
<tr>
<th>Category</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication Tool</td>
<td>Sarah Brown</td>
</tr>
<tr>
<td>Occupational Database</td>
<td>Dinu Chacko</td>
</tr>
<tr>
<td>Industrial Hygiene</td>
<td>Spencer Cluff</td>
</tr>
<tr>
<td>Health Hazard Profiles</td>
<td>Lauren Dean</td>
</tr>
<tr>
<td>Environmental Health &amp; Safety</td>
<td>Victoria Isfahani</td>
</tr>
<tr>
<td>Housing</td>
<td>Chidinma Moito</td>
</tr>
<tr>
<td>Consumer Health</td>
<td>Onyinyechi Odunze</td>
</tr>
<tr>
<td>Radiation Overexposure – Oil &amp; Gas Industry</td>
<td>Setor Sorkpor</td>
</tr>
</tbody>
</table>
FIRE FIGHTER COMMUNICATION PLAN

Decreasing the Risk of on the Job Illnesses, Injuries, and Exposures in BPs Offshore Fire Team  by Sarah Brown

My practicum took place at BP located in Houston, TX. My preceptor was Diana Haines, RN, COHN-S, who has worked with BP for 17 years. She was embedded into the Gulf of Mexico (GoM) HSE group 4 years ago. I worked part time over 10 weeks, assisting in developing and executing a communication plan regarding changes in the Fitness for Duty testing that will be specific to the offshore Fire Team. These requirements are paramount in verifying that the offshore fire team members are medically and physically fit; thereby decreasing the risk of on the job illnesses, injuries and exposures occurring in this population.

Public Health Significance

The essential public health services that most closely related to my practicum were primarily: 1) develop policies and plans that support individual and community health efforts and 2) Inform, educate, and empower people about health issues. The Fit for Duty policy for fire fighters is a new initiative for BP and it is cutting edge process because it is one of the first of its kind. The requirements include both medical and agility testing to verify the health and safety of this specific offshore population. The most difficult aspect will be not only informing, educating, and empowering the fire fighters regarding their current health and fitness status, but also the logistics of actually implementing this program. There are many challenges in capturing this population because of their work schedules, their mode of transportation, and unpredictable situations that can develop while working off shore.

Special events/ duties during your practicum

- Participated in a 2 day mock crisis drill
- Observed a telemedicine unit from which a patient can be diagnosed and treated while in a remote location.

Lessons Learned [OR] Advice for Future Students

- I wish I had known that there were time-critical assignments expected outside of the actual practicum experience-I was late turning in my first assignment!!
Public Health Significance

The costs of mental health issues in the workplace are often hidden, much like illness themselves. Around 20-25% of American workforce is affected directly or indirectly (family members) from mental or emotional illness. In either way, the result is lost productivity, poor performance, absenteeism, higher accident rates and turnover. (Mental Health Association of Greater Houston)

Understanding the mutual influence of mental health and occupational safety is a significant initial step towards providing better mental health assistance and safety programs for the employees. This project is closely related to the assessment and analysis component of the Public Health Essential Services.

This database will be a helpful research tool in the current and future research studies. The successful completion of this project will encourage the corporate world to conduct more research in the field of employee safety and health.

Creating an electronic job description database for a global petrochemical company

I worked with the Halliburton Employee Assistance Program (EAP). Wanting to contribute to the body of EAP research, the EAP is interested in finding about the bidirectional influence between mental health of the employees and occupational safety within the company. With a doctoral student already working on this project, my job was to create an electronic data base of all the job descriptions, including the safety/risk profile of each job category in Halliburton. Each description is linked/identified by a unique job id.

I compiled around 1800 job descriptions and created a single Excel sheet, which can be easily converted to a STATA file for analysis. Each job had more than 50 descriptive components (variables). A small part of the Excel sheet is shown above. I tried to create a STATA file initially but found Excel more user-friendly to create such a large database.

I received training in using SAP software for collecting personnel data.

Learned about the Employee Assistance Program at Halliburton
Public Health Significance

This practicum related to the 10 Essential Public Health Services by monitoring the health status of the workers, diagnosing health problems, informing workers of their health status, and enforcing company and governmental regulations.

The public health service that relates most to my practicum is monitoring. I monitored workers to ensure that their exposures were within the safe limits.

At the end of my surveys I would write letters to employees explaining their exposures and how it affects their health. All of the employees were within the safe limits.

Williams is constantly trying to promote health and safety. They have a gym in their building in Houston and offer discounts on health insurance if employees enroll in their fitness program and attend the gym regularly. This is just one example.

Industrial Hygiene Experience with Williams Gas Pipe

By: Spencer A. Cluff

While working for Williams, I was responsible for monitoring employee exposure to noise, benzene, and naturally occurring radioactive material. This relates to Public Health because it's monitoring within the realm of occupational health.

Williams company policy is that each site will be surveyed by the industrial hygienists every three years or less. The sites are regularly visited by safety managers who oversee a few sites at a time.

As an industrial hygiene intern I would plan trips to various sites in the country, coordinate with site managers, and monitor employees. I would analyze and report findings.

My final products were sound level maps and official written reports stating the results of the surveys that I conducted.

Special Experience

- I was conducting a survey for benzene and observed a fall hazard during the process. General Safety isn't part of my job description but I reported the hazard and the site manager is taking measures to fix the problem.

Lessons Learned

- The closer to graduation that you can do your internship the better. I still have three semesters until graduation and this is keeping me back from being hired fulltime.
Health Hazard Profiles

Practicum Highlights

- Developed Health Hazard Profiles
- Conducted air and noise monitoring
- Research Medical surveillance needed at Baker Hughes chemical plants
- Performed Ergonomic Assessments

Advice for Future Practicum Students

- Completely understand NIOSH analytical methods prior to monitoring.
- Develop several contacts at each Baker Hughes facility.

Health Hazard Profiles: What they are and how it’s done

By: Lauren Dean

Health Hazard Profiles (HHPs) are documents that are intended to outline the health hazards associated with various production processes at Baker Hughes facilities. These profiles provide information about the process, sampling methods, make-up of materials used, and the associated health effects. My primary project while interning with Baker Hughes has been writing, editing, and adding information to these profiles.

When starting a Health Hazard Profile, I first make sure that I understand the process. Next, I collect material safety data sheets. Finally, I conduct air and noise monitoring.

My work at Baker Hughes resulted in several completed profiles and others that are in the beginning stages of development.

Public Health Significance

The Public Health Essential Services (PHES) that most closely relate to my work at Baker Hughes are diagnosing and investigating health hazards, and monitoring health hazards.

These two essential services summarize what the profiles are all about. I have been diagnosing and investigating the health hazards associated with manufacturing processes by observing, learning, and collecting material safety data sheets.

When writing the profile, I include information on the short and long term health effects of exposure to potential health hazards. If needed, I further investigated the potential health hazards by conducting air and noise monitoring. These essential public health services summarize every step of my process while working on the Health Hazard Profiles.
My summer as an IH Intern with UTHSC-Houston EHS

By: Victoria Isfahani

During my time with UTHSC-Houston EHS I had a great opportunity to meet lots of people in the Environmental and Occupational Health Safety (EOHS) field. I also had the opportunity to work on my own on a project throughout the UT-Houston Medical School.

As an Industrial Hygiene intern, I was able to contribute to fit testing of respiratory protection and the inspection of flammable storage cabinets.

One of my favorite aspects of working with the EHS department was the amount of freedom I was given and the opportunity to work on several different projects.

During my last few weeks, I was able to work on my own inspecting flammable storage cabinets throughout the entire medical school. I learned to rely on myself but also became familiar with the resources available.

Public Health Significance

UTHSC-Houston EHS department provides many different public health services to the entire UTHSC-Houston Campus. The following are a few examples: School of Public Health, Medical School, Doctor Clinics, and the School of Nursing.

Those services that I experienced more closely involve informing, educating, and empowering; develop policies and plans; and enforce.

Fit testing is a great example of how the EHS department informed and educated students and residents on how to protect themselves by being properly fitted to a respirator.

The EHS department employees also help ensure that all laws and regulations are adhered to. For example, employees enforce laws and regulations when inspecting medical clinics and when I inspected flammable cabinet storage.
Healthy Homes and Standardization of Eligibility Criteria for Housing

By: Chidinma Moito

I worked at the Houston Health Department, in the Bureau of Environmental and Children’s Health. During this period, I was involved in research, the aim of which was to explore the various federal housing programs and determine their similarities; standardizing them across board and so save the government the cost of having to perform repeated inspections for a particular beneficiary.

Public Health Significance

My practicum experience covered at least 3 essential Public Health Services. We monitored homes in the community and identified problems. The Healthy Homes Initiative helped us diagnose and investigate hazards in homes, especially lead poisoning from lead-based painting. Also, by planning health fairs, our aim was to inform and educate people about possible hazards in their homes.

I was also involved in the Healthy Homes Initiative, and participated in a 2-day intensive Training program for Practitioners. The Healthy Homes Training featured interactive sessions about means of keeping homes healthy: Dry, Clean, Safe, Ventilated, Maintained, Contaminant-Free, and Pest-Free. I was scheduled to accompany inspectors on field visits to perform home hazard assessments and Lead based paint testing in pre 1978 homes.

My host organization contributes to public health by ensuring, through collaboration with the Housing and Urban Development and the Healthy Homes Initiative, that homes are healthy. My host organization also carries out targeted lead poisoning reduction in children.

My research was targeted at maximizing housing benefits for both low-income groups, as well as helping the government save costs. I also participated in the Healthy Homes Initiative as stated above.


Lessons Learned

- This practicum experience has taught me that Public Health is about collaboration with people. It is about forming partnerships with people from different facets of life to achieve a common goal of health for all.

http://www.greenandhealthyhomes.org/content/GHHI-project/

Lead poisoning causes an income loss of $110 billion to $319 billion per generation.
Public Health Law Enforcement

Protecting Our Community
By: Onyih Odunze

During my practicum at the Bureau of Consumer Health, I worked primarily in law enforcement – the public health kind!

The Bureau's main role is to protect the public health by preventing disease, disability and death, which may result from food or water-borne illnesses or drowning in public pools. They do this by enforcing the city ordinances via routine inspections, re-inspections or complaint investigations.

I worked with several groups: Special Waste, Food Safety and Pool Safety. My duties were to assist the investigator during inspections by taking notes, assisting with field tests and making observations.

My final product will be presented to my preceptor on Wednesday, Aug 1. It is a report which summarizes my activities, findings and suggestions for improvement.

Public Health Significance

My practicum experience is extremely important because it deals with the enforcement of laws and regulations that protect the public health and ensure the safety of the community.

Enforcement is the sixth item on APHA's list of 10 Essential Public Health Services.

A few weeks into my practicum, we received a call to re-inspect a restaurant which had been closed the day before due to a roach infestation. The initial investigation had been triggered by a consumer complaint. Closing down the restaurant prevented the occurrence of food-borne illnesses and ensured that all code violations were corrected prior to re-opening.

In addition, the Bureau of Consumer Health carries out routine inspections of special waste generators, which helps to ensure that the waste receptacles (grease traps, grit traps and lint traps) are frequently cleaned out. This prevents the overflow of hazardous waste and possible environmental contamination.

Special Events/Duties

- A re-inspection of a restaurant which was closed due to a roach infestation
- Investigating a consumer complaint regarding the air quality at an indoor pool

Lessons Learned / Advice for Future Students

- You may be thrown into new situations every day, so be ready to adapt at short notice!
Radiation Overexposure in Texas

By: SETOR KOFI SORKPOR

I worked with one of our faculty members in the SPH looking at radiation overexposure incidents in the oil and gas industry in the state of Texas. We reviewed available radiation overexposure data for the state of Texas in relation to rig count from 1970 to present to validate a previous study by Emery et al, (2005). My responsibility was to research, analyze, and graph the oil and gas industry related radiation overexposure incidents alongside rig count in Texas. Our data analysis corroborated the findings of Emery et al, (2005), suggesting that there is a decline in radiation overexposure in the oil and gas industry due to measures implemented in the 1980s. An obstacle we face is getting overexposure data by state for other high rig count states despite searching through the U.S.NRC’s nuclear material events database. Our final findings is to be presented to the Texas boards of Radiation advisory board.

Public Health Significance

My summer 2012 practicum sets the groundwork to research for new insights and innovative solutions to radiation overexposure problems.

The recent nuclear reactor meltdown in Fukushima, Japan brings radiation safety issues to the forefront of the agenda setting therefore results from this project will help understand radiation overexposure issues close to us in the oil and gas industry, here in Texas. This may either help implement interventions to either sustain the decline or to eliminate overexposure incidents entirely. My community preceptor for this practicum was from the University of Texas School Of Public Health. The UTSPH trains the best public health practitioners and researchers to protect the health of the public.


Advice for Future Students

It can be very challenging finding practicum opportunities in the community. The professors usually have projects that you can assist on. Talk to your professors about ongoing projects you can work on.

Duties during your practicum

- I utilized my knowledge of occupational epidemiology to research, analyze, and graph overexposure data.
- I analyzed radiation overexposure data for the State of Texas.

Graph of radiation overexposure from 1970 to 2011 in relation to rig count in Texas.


Radioactive material risk


L100W549-664

Radiation Overexposure in Texas Oil and Gas Industry
For more information regarding
The University of Texas School of Public Health,
Office of Public Health Practice
and the practicum program, please visit:
http://sph.uth.tmc.edu/practicum/