

Public Health Practice



Stories from the Field

The University of Texas School of Public Health
Student Practicum Experiences
Fall 2013 – Environmental & Occupational Health

Prevention diabetes safe kids clean water policy disaster response
cancer adolescent sexual health HIV/AIDS research obesity
alcohol empowerment vaccinations maternal & child health

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

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

This twelfth-edition e-magazine showcases student practicum experiences throughout the Fall 2013 semester. (Prior semesters may be accessed through the e-book, a collection of student abstracts and e-magazines describing their experiences.)



Practicum Topics

Serving Size: 1 Practicum per Student

Servings per e-Magazine: 4

Hours per Week per Student	Approximately 12
----------------------------	------------------

Campuses (Houston)	1
--------------------	---

Division	1
----------	---

Student

Environmental & Occupational Health

Childhood Injury Prevention	Lindsey Heathcock
-----------------------------	-------------------

Heat Illness Prevention	Diana Obodeh
-------------------------	--------------

Catheter-Related Deep Venous Thrombosis	Richard Ogunti
---	----------------

Determining Drinking Water Quality	Obeleye Tamuno
------------------------------------	----------------

Childhood Injury Prevention



This photo demonstrates a safe sleep environment:

- Baby is alone
- No toys, pillows, blankets, bumper pads, or other objects
- Firm mattress with fitted sheet
- Baby is placed on his back

Source:
<http://www.sidscenter.org/SafeSleep/>

Highlights

- Conducted telephone follow-up surveys on safe sleep information.
- Attended home safety classes for expecting parents.
- Updated database with child fatality data.
- Assisted at car seat inspection stations and events.

Lessons Learned

- During my practicum I gained a real grasp of how interdisciplinary public health is. As public health professionals, it is important for us to learn how to work collaboratively with others inside and outside the healthcare professions.

Promoting Healthy Environments for Children

By: Lindsey Heathcock

During my time at Texas Children's, my duties were divided between two organizations.

The goal of the Center for Childhood Injury Prevention (CCIP) is to prevent accidental injuries in children through education. My role was to support the work of health educators on projects concerning car seat safety and safe sleep. I helped market events, run education programs, and report data on community participation.

While working for the Child Fatality Review Team, I updated a national database on cases of accidental child injury that resulted in death. I inputted data from death certificates, autopsy reports, law enforcement records, and CPS records.

My final project was to create an Access database designed to organize data collected from participants in safe sleep classes. I also conducted follow-up interviews with class participants to determine whether information was retained over time.

Public Health Significance

Of the 10 Essential Public Health Services, my host organization mobilizes community partnerships particularly well. As an example, CCIP coordinates Safe Kids Greater Houston, a coalition of many types of professionals from the Greater Houston community. By drawing on the expertise of law enforcement, health professionals, private businesses, and more, CCIP produces creative and effective solutions to health problems.

My project also demonstrates the collaborative nature of public health. The safe sleep initiative is part of a grant through Kohl's Safe at Home Program. Drawing on community resources is an important aspect of public health. Active community participation is essential to ensuring that initiatives are sustainable and effective.

The logo for Safe Kids Greater Houston. It features the word "SAFE" in large, bold, black capital letters. Below it, "K:DS" is written in large, bold, blue capital letters with a colon between the 'K' and 'D'. Underneath that, "GREATER HOUSTON" is written in smaller, bold, black capital letters.

Safe Kids Logo

Source:
<http://safekidsgreaterhouston.org/>

HEAT ILLNESS PREVENTION

Heat Stress Recognition and Management in the Oil & Gas Industry

By: **DIANA E. OBODEH**

In 2010 OSHA issued a Fire Resistant Clothing (FRC) enforcement memorandum pertaining to oil and gas operations. This was intended to protect workers from the danger of potential flash fires.

A flash fire is simply fire that spreads rapidly through a diffuse fuel e.g. dust, gas, or vapor from an ignitable liquid.

Opposition to this rule gained more ground as companies expected an increase in heat illness-related injuries like heat exhaustion & rash. Workers complained of the discomfort they experienced wearing FRCs during the summer months in temperatures as high as 90°F and above.

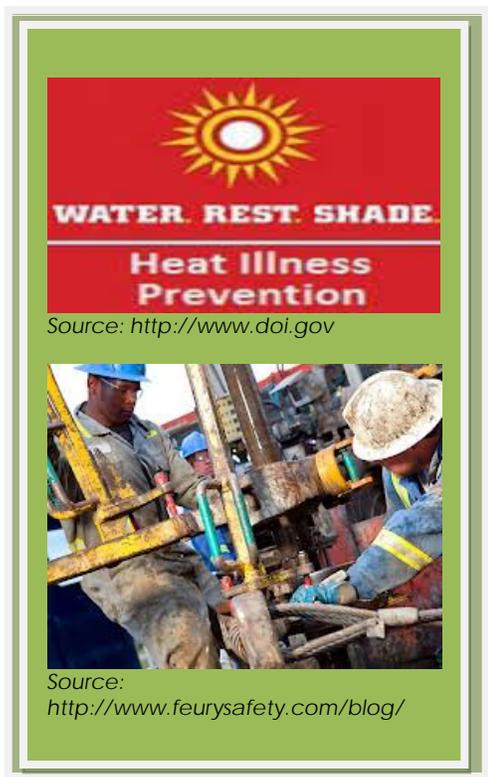
My project was focused on analyzing the effect of FRCs on heat illness cases after OXY (my practicum site) adopted the rule in 2012, as well as evaluating the effectiveness of

the mitigation strategies put in place.

It is interesting to note that there was a significant drop in heat illness cases after the adoption of the rule, contrary to expectations. The cases dropped from 22 in 2010, to 3 in 2013 because of a renewed focus on mitigation strategies such as more frequent rest breaks, shade, provision of water & the use of core control rapid thermal exchange systems.

Practicum highlights

- *Interviewed field experts on newest technology in heat illness prevention.*
- *Hands on experience of a variety of industrial hygiene equipment.*



Source: <http://www.doi.gov>

Source: <http://www.feurysafety.com/blog/>

Public Health Significance

The definition of public health in itself states that life can be prolonged through the informed choices of society, ORGANIZATIONS - public and private, communities and individuals.

My host organization contributes to the health of the public by continuously seeking ways to promote workers' health through policy implementation, wellness programs, sourcing and employing best practices in everyday operations.

Normally, human beings must maintain a constant internal temperature of about 98.4°F. However, numerous internal and external factors affect the body's internal temperature, hence the body is constantly engaged in balancing heat generation and heat release.

In the Oil & Gas industry, the nature of the job is such that most of the field work is done outside & under the sun. This, in addition to the fact that FRCs tend to increase a body's heat generation, makes working under this condition a public health issue.

I would say that my practicum experience is most closely related to the enforcement of laws, regulations and policies that protect health and ensure safety.

Advice for Future Practicum Students

In the field of occupational health and safety, "assumptions" can lead to a catastrophe. Please never hesitate to ASK QUESTIONS; this will help you avoid ASSUMPTIONS. You have the knowledge already, learn the skill, have the will and there is your key to a successful practicum.

Core Control Rapid Thermal Exchange System.

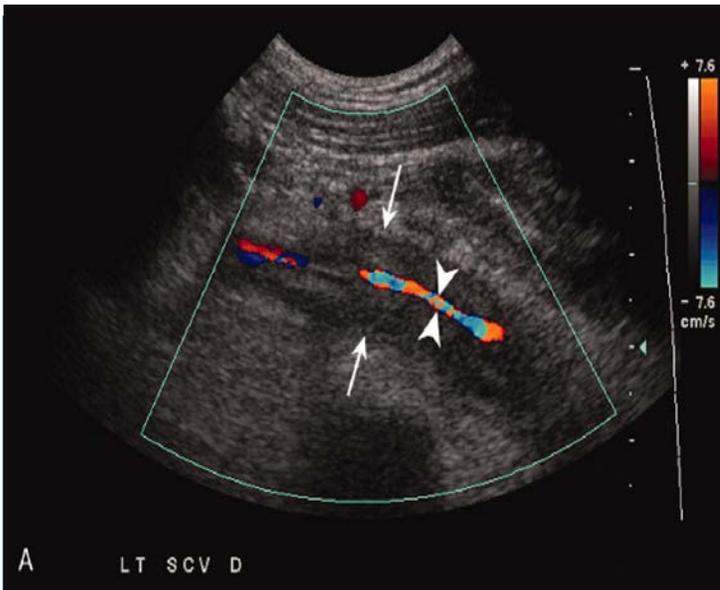
Photo by D. Obodeh

FRCs frclothingpro.com

Heat Rash rashresource.com

Heat Exhaustion healthcentral.com

Catheter-Related Deep Venous Thrombosis



A. Color Doppler Image showing an enlarged Subclavian vein containing a non-occlusive thrombus (arrows) source: www.aium.org

Special events/ duties during your practicum

- Data collection
- Data analysis
- Review articles
- Manuscript writing

Epidemiology of Catheter-Related Upper Extremity DVT

By: Richard Ogunti

At the department of diagnostic radiology of MD Anderson Cancer Center, researchers are working on improving current understanding of central venous catheter related upper extremity deep venous thrombosis by identifying possible risk factors not previously known as a risk factor with a

view of reducing the increasing burden of this entity. My job was to abstract relevant data from the EMR of study participants and performs relevant statistical analysis. I was able to deliver my results using relevant statistical models.

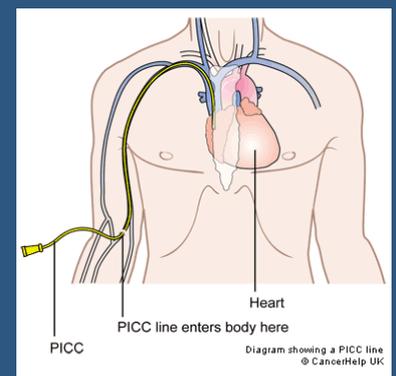
Public Health Significance

Upper extremity deep vein thrombosis was once considered a rare diagnosis when compared to lower extremity deep venous thrombosis. However, over the last several years, the incidence of the upper extremity deep vein thrombosis has been on the rise. It was estimated that more than 5 million central venous catheters are currently inserted annually in the United States. The use of central venous catheters has significantly enhanced the management of cancer patients on chemotherapy. However, one major

complication is the catheter-associated thrombosis which has now attained a public health significance given that it contributes to significant morbidity and interruption of care in this group of patients as well as the associated costly burden to the healthcare system.

Lessons Learned

'Knowledge isn't power until it is applied' - Dale Carnegie.



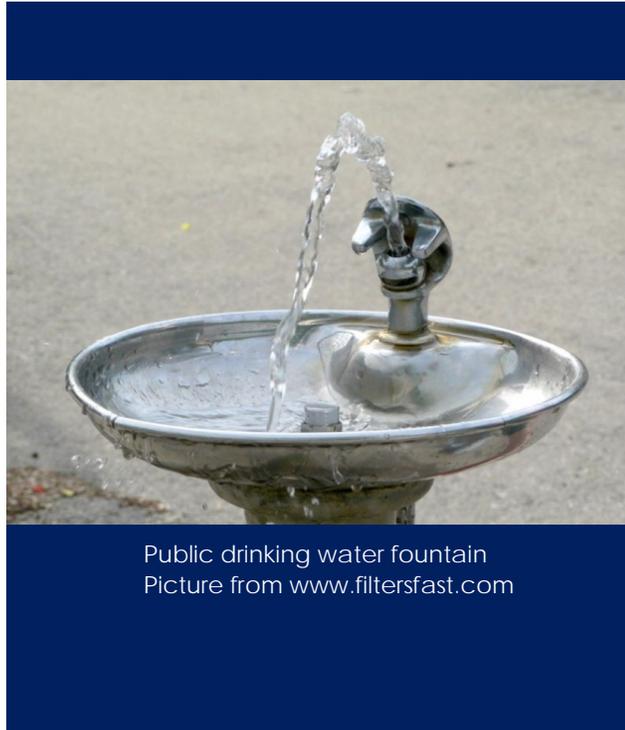
Anatomy of the upper extremity venous system showing a PICC line. Source: CancerHelp UK

Determining Drinking Water Quality

Water fountain sampling in UTHealth buildings

By: Obeleye Tamuno

EH&S department conducts routine sampling of drinking water from the hallway fountains in the major buildings of UTHealth. This involves taking "first-draw" water samples from the fountains and analyzing these for potential contaminants, notably copper and lead. The source of each sample is noted so that any abnormality can be traced to a particular fountain and appropriate measures taken to address the issue. My duties basically involved collecting these samples before anyone used the fountains, and then organizing and sending them to a lab for analysis. This project was important because it helped to ensure that students and staff had access to safe, non-contaminated water.



Special events/ duties/highlights during your practicum

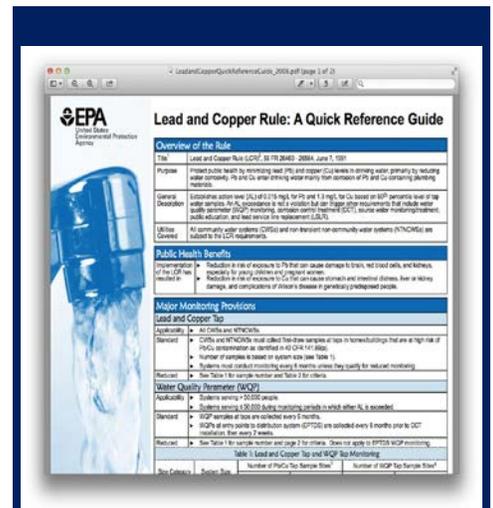
- Receiving the water sampling results was always a highlight, especially as most of them were normal.

Lessons Learned [OR] Advice for Future Practicum Students

- You basically get out what you put into the practicum. Approach it like a real job and you will learn a lot!

Public Health Significance

In line with the Essential Public Health Services, activities at my practicum site include investigation of health hazards in the UTHealth community. This was done through laboratory surveys, air quality assessments, radiological surveys and, of particular interest to me, water quality assessment. Following these surveys, members of the UTHealth community were educated about the health issues noted, through written reports and memos to department heads. On the job, practical steps were employed to ensure that laws and regulations which protect health and ensure safety were adhered to.



Lead and Copper Rule
Available from
http://www.epa.gov/ogwdw/lcr/mr/pdfs/arq_lcmr_2004.pdf

For more information regarding
The University of Texas School of Public Health,
Office of Public Health Practice
and the practicum program, please visit:
<https://sph.uth.tmc.edu/practicum/>