Public Health Practice

Assessment

Policy Development

Assurance

UTHealth School of Public Health Practicum Experiences Fall 2015 - Environmental & Occupational 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 gain a deeper understanding of public health practice, interact with professionals in the field, and expand their repertoire of professional skills.

This 18th edition e-magazine showcases student practicum experiences throughout the Fall 2015 semester. Prior editions may be accessed on the practicum website at https://sph.uth.edu/academics/public-health-practice/#tabs-2 (click on the Reports tab)
# Practicum Topics

## Houston

*Number of Students: 5*

### Environmental and Occupational Health

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ENVIRONMENTAL LABORATORY INSPECTION

A PICTURE SHOWING ONE OF THE RESEARCH LABS IN BAYLOR COLLEGE OF MEDICINE

Safety inspections and surveys in the research lab
By: Adeyanju Opeyemi Olamide

The major duties of the environmental health department in Baylor College of medicine is to reduce hazards in the work environment by ensuring compliance with federal and state regulations. The department provides biological, chemical, compliance, occupational and safety compliance programs. As an intern in this department, I was charged with the responsibility of comprehensive laboratory inspections, and laboratory surveys. My major duty was to assist in taking chemical inventories of hazardous chemicals present in the research laboratory, updating door signs according to the current GHS standard, and conducting comprehensive laboratory surveys using Baylor College of medicine.

The laboratory environment can be a hazardous place to work. Workers are exposed to potential hazards including chemical, biological, physical and radioactive hazards. More than 500,000 workers are employed in laboratories in the United States. The public health importance of the services provided by the environmental safety department include; protection of workers from exposure to chemicals, reduction in risk of accidents and fire, Ensuring safety compliance, reduction in workers compensation due to reduced incidence of injuries, and increased productivity.

Lesson Learned

- The most important thing I learnt from Baylor College of medicine is to work independently.
- I learnt that hazard identification is essential for safety in the work environment.
- I also learnt that proper

Special events/ duties during your practicum

- Carrying out comprehensive lab surveys
- Recording chemical inventories
- Updating and posting door signs
Quality Assurance Assessment

Husbandry Operations Quality Assurance Assessment and Research Project

by: Randi Alexander

Public Health Significance

My experience aimed to develop policies and plans that support individual and community health efforts, and to evaluate the effectiveness, accessibility and quality of personal and population based health services. Through my research and data collection we were able to construct a standard of operations cleaning procedure. All staff utilizing the animals rooms can implement this cleaning procedure safely and correctly to decrease the risk of cross contamination bacteria. This is important for the health and safety of our animals. In CLAMC, animals are first priority. These animals are part of extensive research that can excel our future and it is important to maintain their optimal health status to ensure accurate test results by the researchers.

Special events/ duties/ highlights during your practicum

- IMM facility was the most interesting to collect samples from due to its unique barrier/semi-barrier design
- Re-evaluating the steps of my research to accommodate unexpected changes.

Advice for Future Practicum Students

Remain positive and have fun. This is your experience and you get out of it what you put in it!! I learned a lot of real world experience and was forced to think on my feet and make changes when necessary. Great skills that I can take with me into my career.

Reference booked used by husbandry supervisor

Bacteria and fungal growth from Denton-Cooley rat room shelving
I performed weekly environmental monitoring (EM) in the Process & Development area; consisting of both microbial and non-viable airborne particulate monitoring. The microbial measurements were obtained using a Sterilizable Microbiological Atrium (SMA) and non-viable particles using a CLIMET particle counter. The purpose of the monitoring was to collect sufficient data to determine if the PD area meets ISO Class 8 specifications. I also assisted in

**Public Health Significance**

My data collected from the environmental monitoring is going to be used to determine if the PD area can meet ISO Class 8 specifications. The data supports that the PD lab can meet ISO Class 8 specifications, but various implementations and changes of current policies and SOPs are needed to satisfy internal requirements. Classifying the PD lab as ISO Class 8 adds a higher level of quality to the processes and to the manufactured products. In addition, I am the Safety Officer for the company and provide continuous training to all employees to ensure a safe working environment.

**Lessons Learned [OR] Advice for Future Practicum Students**

- Maintain an open line of communication to ensure proper completion of assigned tasks
- Be flexible and understanding about scheduling

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

- Used a spectrophotometer for DNA concentration
- Observed HPLC to separate and identify iso-forms

**VGXI Facility – located in The Woodlands, TX**

(http://vgxii.com/about/overview/)
Assessing Indoor Air Quality in a Vulnerable High-rise

By: Matthew Duncan

In early 2015, Facilities Operations at UTHealth called Environmental Health and Safety (EHS) into a meeting to discuss the assumption that all laboratory air in the School of Public Health was 100% exhausted. This assumption was found to be false on floors 3-7. An educational campaign ensued to remind researchers of the need to conduct all chemical and biological experiments within proper engineering controls.

To further expand our EHS best business practices, a building-wide air sampling campaign was completed to ensure common indoor air pollutant levels were within recommended parameters. The final product was a report outlining the findings. All IAQ pollutant levels were within recommended values.

Public Health Significance

This project was the definition of public health service. Routine monitoring was conducted which found the issue. The problem was then diagnosed and investigated.

My task was then to inform, educate, and empower the people about the possible health implications of the findings and further evaluate the situation to help bridge the gap between the point of discovery and the solution.

In short, public health encompasses life and health and the requirements to extend and improve them both. Our team here at UTHealth Environmental Health and Safety is a multidisciplinary, focused, dedicated group with a simple mission statement. We want everyone affiliated with this university to go home at the end of the day as happy and as healthy as when they arrived that morning. This is accomplished by actively engaging the essential public health services.

Advice for Future Practicum Students

Don’t be afraid to make mistakes. This is a learning experience. Be proactive and question assumptions.

Highlights

- Meeting a whole host of faculty, students, and staff is always an exciting experience. Helping ensure their health and safety was very rewarding.
- Learning how to calibrate and operate IAQ equipment was important for my future in EHS.

Health and Safety

Photo courtesy of Dr. “Safety Bob” Emery

Caption describing picture

Photo courtesy of Dr. “Safety Bob” Emery
Research Laboratory Safety

By: Jingwei Fan

This fall I was fortunate enough to intern at Baylor College of Medicine (BCM). I was in the Environmental Safety Department and assisted an Environmental Safety Specialist with lab safety work, which has a direct impact on creating and maintaining a safe working environment. My main tasks were doing research lab safety surveys, recording chemical inventories and performing laboratory safety inspections.

The central idea of my project was to perform lab inspections in order to assist in improving the safety of employees in the research lab environment. Lab inspections included recording lab deficiencies, and generating a report to notify principal investigators about potential safety hazards in their labs. In addition, we posted lab door or bench signs that had information based on the hazards we had noted in each area. Behind the lab door signs, we posted the chemical inventories.

Lessons in Research Laboratory Safety

Public Health Significance

More than 500,000 workers are employed in laboratories in the U.S. The laboratory environment can be a hazardous place to work. Laboratory workers may be exposed to numerous potential hazards including chemical, biological, radiological and physical hazards, as well as, musculoskeletal stresses.

Research laboratory safety at BCM is governed by guidelines and regulations. The work I did was to monitor compliance with these guidelines and regulations and provide guidance on creating a safer working environment, enhancing the public health of the workers, and the public. It is important to keep these hazardous materials contained in order to protect both the workers and the public. Many regulations, including local, state and federal, place limits on the release of hazardous materials. Research institutions must comply with these regulations.

Lessons Learned and Advice for Future Students

- Hazard communication is important in the working environment. This is related to the information we learned in class.
- You can learn a lot from public health and environmental safety practitioners during an internship.

Practicum Duties

- Completing laboratory safety surveys.
- Recording chemical inventories.
- Performing equipment inspections prior to repair, maintenance or disposal.
- Posting hazard warning signs.
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/