

Public Health Practice

Assessment



Policy Development



Assurance



UTHealth
School of Public Health
Practicum Experiences
Fall 2015 – DrPH/PhD

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 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/Austin

Number of Students: 4

Epidemiology

The Microbiome and Cancer

Vancheswaran Gopalakrishnan

Industrial Health and Safety

Bingjie Li

Preoperative Chemotherapy for Lung Cancer Patients

Jitesh Shewale

Community Health Practice

Making Healthy the Norm in Texas

Stephanie Clendennen

The Microbiome and Cancer

The role of the microbiome in defining response to therapy in metastatic melanoma patients

By: Vancheswaran Gopalakrishnan

The 'microbiome' refers to the collective genomes of all microorganisms that inhabit our body. In order to understand their role better, several tools have been developed that allow for their characterization.

Melanoma is a fatal form of skin cancer; patients with advanced disease are susceptible to high rates of morbidity and mortality from the disease.

Our group is interested in studying the role of the microbiome in influencing response to melanoma therapy. In order to achieve this, we are collecting buccal (oral), fecal and tissue samples from late-stage melanoma patients who are undergoing treatment at The UT MD Anderson Cancer Center.

Patient accrual is still underway. I have been given the tremendous opportunity to lead this project and am responsible for ensuring that all study processes work in harmony.

I screen potential study participants, track samples from collection to analysis, maintain a study log and coordinate all analyses.

Our pilot analysis did point to the fact that certain bacterial species may be implicated in non-responders. Though we don't have a final deliverable yet, I have given several presentations on our project and hope to gain further insight as I continue to pursue this topic for my dissertation.

Public Health Significance

- Melanoma incidence is continually on the rise. While it accounts for only ~5% of skin cancers, it is responsible for approximately 75% of skin cancer deaths.
- The microbiome is a modifiable risk factor for melanoma. Targeting the microbiome may help potentiate response to therapy in melanoma patients.
- The UT MD Anderson Cancer Center is uniquely suited for this project. Being a tertiary referral center, approximately 10,000 melanoma patients visit the hospital each year and are offered comprehensive and specialized care.



Illustration: Don Smith

Our body is inhabited by trillions of microorganisms that outnumber our own cells by a ratio of 10:1

Special events/ duties/highlights during your practicum

- Firsthand experience in managing a prospective sample collection study
- It takes a small village to conduct these studies. I have learned the importance of teamwork and interdisciplinary collaborations.

Lessons Learned [OR] Advice for Future Practicum Students

- Be willing to try something out of your comfort zone even if a steep learning curve is involved.



There is a growing appreciation of the role of the microbiome in health and disease

<http://www.nature.com/nature/journal/v486/n7402/index.html?lang=enaphic>

Industrial Health and Safety

Practicum Highlights

- Industrial experiences
- Communicate with people of different background



<http://justengineeringschools.com/top-petroleum-engineering-schools-in-the-world/>

Advice for Future Practicum Students

- Do academic work within industrial environment may bring you something amazing!

Improve Health and Safety in the Oil & Gas Field

By: Binaie Li

Working in oil & gas fields is always a kind of difficult work with some risks. There should be some safety guide which can be followed by to decrease those risks, avoid incidents minimize the cost as well.

I supported the group to analyze the safety and financial data, managed database and related files.

We proposed health guide and health education materials, such as fitness to work, travel health and established partnership with local clinic.

After reviewing articles, I provide suggestions for health and safety of current projects.

Public Health Significance

Monitor health status to identify and solve community health problems.

Diagnose and investigate health problems and health hazards in the community.

Inform, educate, and empower people about health issues.

Enforce laws and regulations that protect health and ensure safety.

Link people to needed personal health services and assure the provision of health care when otherwise

Health and safety of workers in oil & gas is a critical public health need. Some kind of guide, methods, regulations and trainings are very important and necessary to the employees of a company. It should be regarded as priority in the management of a company.

Different industries may have different high risk behaviors, including mining, oil and gas extraction, mechanical and so on. Safety programs are necessary for each area.

Preoperative Chemotherapy for Lung Cancer Patients

Practicum Highlights

- Formulate study objectives
- Collect demographics and clinical data on Non-small cell lung cancer patients
- Perform statistical analysis

Lessons Learned

It was exciting opportunity to incorporate my epidemiology and statistical skills, and the clinical knowledge of the oncologists and thoracic surgeons for this research project.



Localized Non –Small Cell Lung Cancer

Pre-operative chemotherapy followed by surgery for N2 non-small cell lung cancer. By: Jitesh Shewale

I worked in the department of Thoracic and Cardiovascular Surgery at UT MD Anderson Cancer Center for this project.

Lung cancer continues to be major public health problem and is number one cause of cancer related mortality in the United States. This study was done as perioperative and long-term outcomes in lung cancer patients undergoing chemotherapy followed by surgery have not been well defined in the literature.

Public Health Significance

My practicum experience was closely related to #9 & #10 the Public Health Essential Service(s) which are

- Evaluate effectiveness, accessibility, and quality of personal and population-based health services.
- Research for new insights and innovative solutions to health problems

The major findings of the study were

- *Pre-operative chemotherapy followed by surgery for N2 NSCLC in a well-selected cohort results in good short and long-term outcomes.*
- *No survival differences were noted between patients with biopsy proven N2 and those with PET-positive N2 nodes and it may be acceptable to forgo biopsy tests without compromising patient outcomes*

This study will enable us to answer a number of questions related to current treatments strategies of local and locally advanced lung cancer, to determine outcomes representing the modern era of lung cancer care and to generate hypothesis for future clinical research.

The University of Texas MD Anderson Cancer Center is a premier cancer center in the world with the mission to eliminate cancer using outstanding programs that integrate patient care, research and prevention.

Making Healthy the Norm in Texas

Development of the Living Healthier Digital Platform

By: Stephanie Clendennen

IT'S TIME TEXAS is a 501(c)(3) nonprofit organization in Austin, TX with a mission "to empower people to lead healthier lives and build healthier communities".

My practicum focused on the development of the IT'S TIME TEXAS Living Healthier digital platform, a web-based tool designed to help individuals meet their personal health goals.

My practicum tasks included:

- ❖ Promoting health services at community events.
- ❖ Attending and engaging in weekly team meetings.
- ❖ Conducting literature reviews to inform tool development
- ❖ Creating evidence-based program content including goals/objectives, questionnaires, activities, reminders, and motivational incentives.

Public Health Significance

Unhealthy has become the norm in Texas and the United States. Preventable chronic diseases are the leading causes of death and illness.

IT'S TIME TEXAS has taken action to make healthy the norm in Texas by serving individuals in communities and schools.

IT's TIME TEXAS primarily focuses on two of the 10 Public Health Essential Services:

- ❖ Link people to needed personal health services and assure provision of health care when otherwise unavailable.
- ❖ Inform, educate and empower people about health issues.

These services are accomplished through the IT'S TIME TEXAS Hotline, a free source of health information and professional health coaching and through numerous free programs, phone apps, and community events.

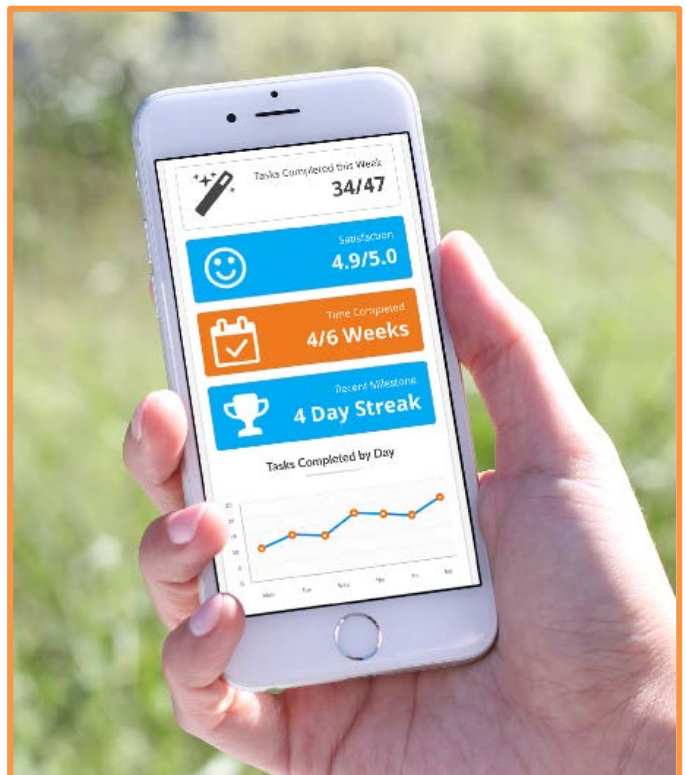
**IT'S
TIME
TEXAS**

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

**MAKE
HEALTHY
EASIER**

The practicum is a great opportunity to:

- ❖ Gain experience in a DrPH competency where you feel lacking.
- ❖ Work in your ideal future setting or with an organization with which you would like to be employed.
- ❖ Make contacts in your field of study/practice.



A mockup of the Living Healthier Digital Platform
Source: IT'S TIME TEXAS Internal Documents

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/>