

Public Health Practice



Stories from the Field

The University of Texas School of Public Health
Student Practicum Experiences
Summer 2015 – Dual Degree

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 seventeenth-edition e-magazine showcases student practicum experiences throughout the Summer 2015 semester. (Prior semesters may be accessed through the e-book, a collection of student abstracts and e-magazines describing their experiences.)



Practicum Topics

Number of Students: 5

Hours per Week per Student	Approximately 12
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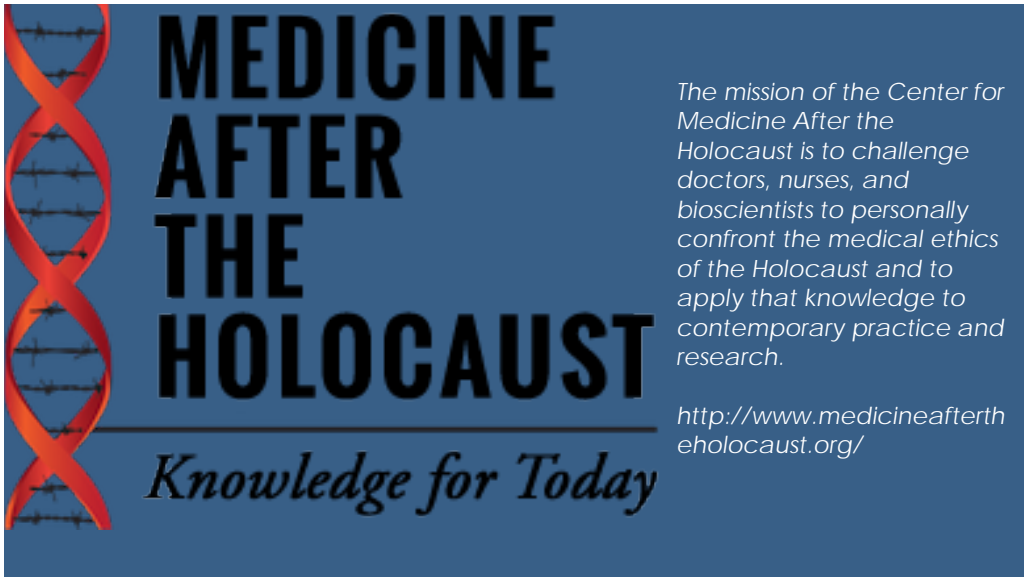
Campuses (Houston & San Antonio)	2
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Dual Degree

Student

Medicine after the Holocaust	Alice Baker
CNS Disease in Pediatric Leukemia	Steven Curry
Newborn Screening Project	Albert Heo
A potential treatment for HPV	Claudia Ibarra
Ethnic Disparities in Orthopedic Trauma	Deanna Morelli

Medicine after the Holocaust



**MEDICINE
AFTER
THE
HOLOCAUST**

Knowledge for Today

The mission of the Center for Medicine After the Holocaust is to challenge doctors, nurses, and bioscientists to personally confront the medical ethics of the Holocaust and to apply that knowledge to contemporary practice and research.

<http://www.medicineaftertheholocaust.org/>

Medicine after the Holocaust: A curriculum for medical students

By: **Alice Baker**

My practicum experience was at the Center for Medicine After the Holocaust, which aims to educate healthcare professionals about the involvement of the medical profession in the Holocaust.

I worked with Dr. Sheldon Rubenfeld, President of the Center for Medicine After the Holocaust, and Dr. Stacy Gallin, professor of Bioethics and the Holocaust at Drew University, to create

a curriculum for medical students examining medicine after the Holocaust and relevant contemporary ethical issues.

The final product will be an elective course to be taught in medical schools in eight 1-hour sessions. The curriculum will be submitted to the AAMC's MedEdPORTAL, where if accepted it will be available for use by educators in medical schools across the country.

Public Health Significance

The Center for Medicine After the Holocaust contributes to public health by helping assure a competent public and personal health care workforce. Many of the horrors committed under Hitler's reign were considered "public health" measures, and the healthcare profession was intimately involved in enacting these measures.

By studying this material and learning from the mistakes made in the name of public health in the Third Reich, health care professionals will be more

competent and equipped to handle modern ethical dilemmas in public health.

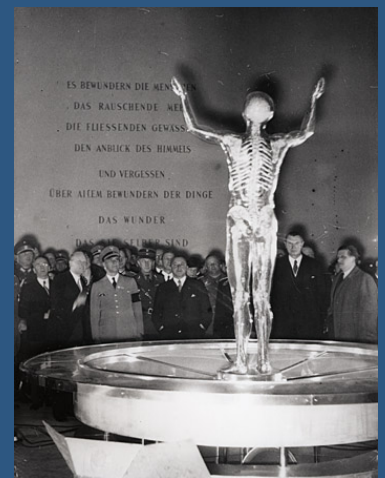
Physicians were particularly guilty in committing atrocities in the Holocaust. By encouraging medical students to consider ethical issues in modern healthcare and reflect on their own moral ethos, this curriculum will help equip the next generation of physicians to treat their patients in a compassionate and ethical manner.

Highlights

- Once the curriculum is completed, I will be able to submit it to the AAMC's MEdEdPORTAL
- If accepted, this will be my first peer-reviewed publication

Advice for Future Students

- Don't just settle for the first practicum you find. Start looking early and find a practicum that really piques your interest. Use this opportunity to get out of your comfort zone and learn something completely new.



Nazi officials at the "Miracle of Life" exhibition, German Hygiene Museum, Dresden, 1935.

<https://cms.www.countway.harvard.edu/wp/?p=2883>

CNS Disease in Pediatric Leukemia



MD Anderson Cancer Center

Image Credit: The University of Texas System

Radiation Therapy in Pediatric Patients with Central Nervous Involvement of Their Leukemia

By: Steven Curry

I worked with Dr. Susan McGovern in the Department of Radiation Oncology at MD Anderson Cancer Center.

I reviewed patient records to build a database and conduct a retrospective study on children and adolescents with leukemia and lymphoma with CNS involvement who underwent total body irradiation as part of their conditioning regimen for stem cell transplantation. Many of these patients

received an additional boost of radiation to their brain and/or spine.

Once we finish collecting follow-up data for these patients we will analyze the variables involved in survival and long-term toxicity.

This will help radiation oncologists in making decisions regarding the dose and volume of radiation for pediatric leukemia patients undergoing stem cell transplantation.

Public Health Significance

Acute leukemia is the most common type of cancer in children. Advances in therapies from clinical trials have raised the 5 year survival to around 90% in pediatric acute lymphoblastic leukemia patients and nearly 60% in acute myeloblastic leukemia.

Total Body Irradiation is frequently used in preparation from stem cell transplantation, and cranial or craniospinal boosts are used in some patients with disease in their central nervous system. While effective, these

treatments have risks, including greater long term morbidity and secondary malignancies.

My research project was aimed at helping to determine which patients benefit from these boosts, what the appropriate doses are, and what and the long term effects are.

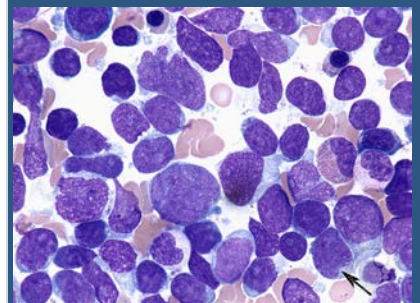
MD Anderson is a comprehensive cancer center that is involved at all levels of public health, including research, patient care, education, and policy.

Practicum Highlights

- Reviewing medical records to gather data
- Analyzing data to estimate risk and survival measures
- Shadowing in the Brain & Spine Center and the Proton Therapy Center at MD Anderson

Advice for Future Students

- Expect to do plenty of independent learning in the area of your practicum to expand on your knowledge from the classroom.
- Take opportunities to learn from the people around you.



Large leukemic blast cells in T-cell lymphoblastic leukemia.

Image credit: American Society of Hematology

Newborn Screening Project



Newborn screening allows babies with potentially life-threatening and debilitating disorders to lead healthy lives

[Image Source](#)

Special Events/ Duties during My Practicum

- Learned about medical genetics and newborn screening through shadowing and a project
- Presented the project at the Texas DSHS
- Attended the 2015 Genetics Conference in Houston

Advice for Future Students

- I found out about this opportunity through a friend and classmate, so ask around!
- Choose something you'll enjoy doing for a whole summer
- Taking other classes (even in-person ones) while doing a practicum is totally doable; Just work it out with your preceptor beforehand

Assessment of the Need for Funding Support of Newborn Screening Follow-Up Services for Metabolic Disorders in Texas

By: ALBERT HEO

As part of the Medical Genetics Summer Scholars Program by the Texas Department of State Health Services (DSHS), I had the great opportunity to shadow and work with Dr. Hope Northrup at UT Houston. Our project assessed the need for funding support of newborn screening follow-up services for metabolic disorders in Texas. Currently there is no funding support for metabolic specialists and

genetic counselors in Texas to provide informal consultations to primary care physicians when newborns receive presumptive positive results on their newborn screening. By surveying Texas metabolic centers as well as health departments of other states, we assessed this need for funding support in Texas and put together a presentation which was given at the Texas DSHS on July 29th.

Public Health Significance

Newborn screening is one of the [most successful](#) public health programs in the U.S. It was amazing to see people lead healthy lives because of early detection and management of disorders on the newborn screening panel. With this project, I was able to contribute to the development of policies and plans regarding newborn screening follow-up services. On May 26, 2015, Texas newborn screening was expanded from 29 to 53 disorders, increasing the referral burden on

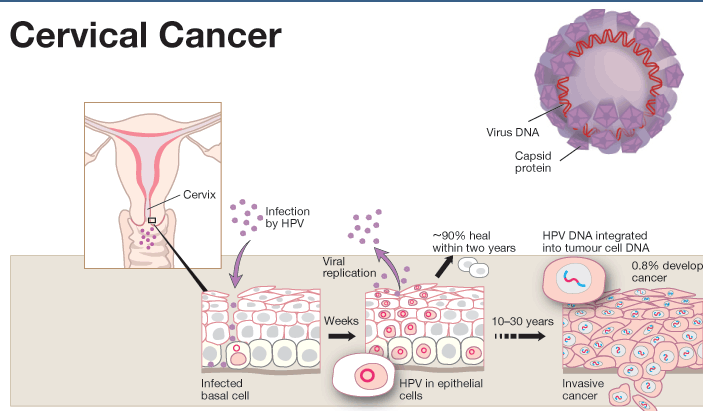
metabolic centers. This project provided evidence that funding support of follow-up services, which is available in many other states, is desperately needed in Texas. Through shadowing, I also observed my preceptor contribute to public health by monitoring, diagnosing, and treating metabolic diseases; linking patients to needed health services; and educating and empowering patients and their families.



Blood samples for newborn screening are obtained by heel stick. [Image Source](#)

A potential treatment for Human Papilloma Virus

Cervical Cancer



The Nobel Committee for Physiology or Medicine 2008 Illustration: Annika Röhl

HPV virus can cause cell changes in the cervix, which could lead to cervical cancer or cervical dysplasia.

Practicum Observations

- Working in clinical research taught me the importance of patient confidentiality and obtaining and making sure patients understand the informed consent.
- It was very rewarding to get the chance to speak with patients and explain to them what HPV is and how there is a potential treatment and a chance for them to be HPV free.

"Science and Technology." *Onco Health*. N.p., 2013. Web. 04 Aug. 2015.

Raising awareness about Human Papilloma Virus and a promising study to potentially eradicate the infection

By: Claudia Ibarra

During the summer I had the chance to work at the University of Texas Houston Medical School at Houston department of OBGYN where I worked as a research assistant on the Women's Health Integrative Medicine Research (WHIM) program. The main project that I helped on was a phase II placebo randomized study that evaluated the possible clearing of HPV infection. HPV is very prevalent and there is currently no treatment for it, so many times women are not even aware they have

it. This is a public health issue because women who are not constantly monitored can develop cervical cancer from an HPV infection. In the project I was in charge of reviewing medical records in different clinics, approaching patients, and filling out screening forms. It is still a work in progress that hopefully but until then, the project will continue to monitor the enrolled women to see the effectiveness of the supplement.

Public Health Significance

The Active hexose correlated compound (AHCC) phase II randomized placebo study I helped on is related to the essential service of Health Care providers of public health. The WHIM Research Program at the OBGYN department of UT Health Medical School contributed to public health because it hopes to promote the use of nutritional supplements to promote women's health and prevent illnesses such as HPV and cancer. Specifically in the study I helped on, we were hoping to study the effectiveness of AHCC in clearing HPV infections. Achieving this would be of great

significance because it provides a treatment for an infection that currently has no cure. The current alternative used continued monitoring in case cancer develops. Because HPV infections require constant monitoring and regularly obtaining PAP smears, many times women fail to follow up until something actually does develop and end up with cervical cancer. AHCC could potentially prevent this scenario and could provide a potential clearing of the infection.

Lessons Learned

- This summer research practicum taught me to be flexible with my assigned responsibilities. Research protocols change frequently and your success can equate to you learning how to adapt to these changes.



"U.S. Food and Drug Administration." *HPV (human Papillomavirus)*. FDA, 13 Mar. 2015. Web. 03 Aug. 2015.

HPV is one of the most commonly sexually transmitted diseases. "It is most common in men and women in their late teens and early 20s" -healthychildren.org

Ethnic Disparities in Orthopedic Trauma



The Emergency Department of University Hospital is a Level I Trauma Center.

Photo courtesy of <http://hospitals.jefferson.edu/departments-and-services/orthopedic-trauma-services/>

Highlights during my practicum

- I had the autonomy to set up the study database and enter in the data as I saw fit.
- I learned new QualityMetric software and new questionnaires that I can use in my future career.

Ethnic disparities in clinical outcomes for orthopedic traumas.

By: Deanna Morelli

At University Hospital, I worked on a study that aimed to find ethnic disparities in perceptions of isolated orthopedic trauma between Hispanic and non-Hispanic white patients. This was a pilot study using multiple surveys to glean evidence of perceived disparity. This study is being performed because research shows patient perceptions influence functional clinical

outcomes following orthopedic trauma. This pilot study was performed in hopes of creating a larger study with the results. My duties on the study included entering the data for the patient surveys and analyzing the results. The final product of my work is a database and a preliminary statistical analysis. The analysis is not finalized, however, and therefore cannot be published here.

Public Health Significance

This practicum experience relates to the essential public health service of diagnosing and investigating health problems and health hazards in the community. San Antonio has a large Hispanic community that also represents a large percentage of the patient population seen at University Hospital. Therefore, researching perceptions of clinical outcomes between Hispanic and non-Hispanic white patients in orthopedic traumas is important to ensure the ultimate goal of equal

outcomes between races. This study demonstrates the public health ethical principle of social justice in seeking to address any disparities in health outcomes based on ethnicity. Additionally, the University Health System (UHS) is dedicated to clinical research in many sectors of health outcomes and diagnostic procedures in order to further the health of populations. Thus, in addition to clinical medicine, UHS plays a vital role in the public health of San Antonio and the United States.

Advice for Future Students

- The practicum is your chance to apply the knowledge you learned in class in a real work environment, so make the best of it.



Principal Investigator: Boris A. Zelle, MD, orthopedic trauma surgeon.

Photo courtesy of <http://www.utmedicine.org/utmed01.cfm?pageID=1044>

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/>