Public Health Practice

Stories from the Field
The University of Texas School of Public Health
Student Practicum Experiences
Summer 2014 – Epidemiology
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 fourteenth-edition e-magazine showcases student practicum experiences throughout the Summer 2014 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: 17

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School linked dental sealant program

Project Saving Smiles (PSS) Quality Assurance
By: Claudia Amezquita-Lee

The Project Saving Smiles (PSS) is an initiative of the Houston Department of Health and Human Services. PSS has been delivering oral health services since 2008; including oral screenings, dental sealants, fluoride varnish, and oral health education free of charge to 2nd grade students enroll in Free/Reduced lunch programs.

The quality assurance program consists of sealant retention after its placement 12 month later. For my practicum I performed data integrity validation and analyzed the PSS quality assurance data since the program inception in 2008. The final work product consists of a multi-year longitudinal dataset from Houston area schools.

Special events
- Observed first-hand the organizing of a program function and participated as a direct care provider and interacted with school children.

Advice for Future Students
- Never too early to start looking for your practicum experience.
- Network with public health professionals early in your academic career.

Public Health Significance

My practicum experience with PSS is associated with program effectiveness evaluation, accessibility and quality of personal and population-based health services.

The quality assurance program is an important aspect of the public health initiative to ensure effectiveness of the sealant program to prevent caries in children.

www.houstontx.gov
Dietary Quality Among Children

Poor Adherence to Dietary Guidelines Among Children and Adolescents Using NHANES 2005-2010 Population

For my practicum, I worked in the Epidemiology department at MD Anderson Cancer Center. My main project was assessing adherence among children and adolescents to the Dietary Guidelines for Americans (DGA), which were created by the United States Department of Agriculture (USDA) and are updated periodically. I used the National Health and Nutrition Examination Survey (NHANES) to assess adherence to the 2010 DGA. Specifically, I looked at Healthy Eating Index (HEI) scores of twelve dietary components. Analysis showed that children across all ages are failing to meet federal dietary guidelines and that diet quality worsens as children progress into adolescence. This is problematic as dietary habits that are established in youth often persist throughout life.


Public Health Significance

The essential public health services that were addressed during my practicum included monitoring health status to identify community health problems and inform, educate, and empower people about health issues. From my research the develop policies and plans service can and should be implemented as well.

By identifying the poor dietary adherence that exists among children and adolescents across age groups, we can then use that information to determine what dietary interventions need to be created to address this problem. In addition, dietary interventions can target specific dietary components among certain age groups to most effectively increase adherence to federal dietary quality standards.

Practicum Highlights

- Conducting informational interviews with various faculty at MD Anderson, which allowed me to better determine my post-graduation plans.

- A wide variety of speakers came to give both formal and informal talks in subjects of which I had little previous knowledge.

Advice for Future Students

- When choosing a practicum, only apply to those that genuinely interest you. Applying to a practicum just so that you can have it over with defeats the purpose and you don’t get as much out of it in the end.

MD Anderson Cancer Center works to eliminate cancer. Source: [https://plus.google.com/+mdanderson/post](https://plus.google.com/+mdanderson/post)

Summer 2014 • Emilyn Banfield • MD Anderson Cancer Center • Dietary Adherence Among Children
Labor rights & work-related injuries in Texas

Work-related injuries & illnesses in Texas

Bethany Boggess

The National Economic & Social Rights Initiative, based in New York, has been collaborating with the Workers Defense Project in Austin, Texas to produce research regarding work-related injuries in the state of Texas. I partnered with the two organizations to obtain data on work-related injuries in Texas, with a focus on low-wage workers or uninsured workers. This project resulted in an extensive search for data about work-related injuries from epidemiologic, clinical, and industrial sources. In July, we located and obtained data on work-related hospitalizations in Texas, much to the thanks of several public health policy professors at the UTHSC in Houston.

An analysis of these 6,147 work-related hospitalizations showed that workers who are uninsured experienced more life-threatening injuries compared to workers with workers’ compensation insurance.

Public Health Significance

The field of public health seeks to identify and eliminate health disparities, which makes this discipline ideal for pursuing social justice in our communities.

Identifying and analyzing information about work-related injuries relates to two essential public health services: (1) Monitoring health status to identify community health problems, and (2) Researching for new insights and innovative solutions to health problems. Disparities found in the data on work-related hospitalizations add to a growing body of evidence that socially disadvantaged groups of workers may experience more dangerous working conditions and more severe injuries.

Both the National Economic & Social Rights Initiative and the Workers Defense Project have a history of serving vulnerable and invisible populations by conducting research driven by local communities and by providing direct services. I have greatly benefited from the opportunity to work with two organizations focused on advancing the rights and safety of low-wage workers.

Lessons Learned

Internships are excellent platforms for trying out new skills or areas of interest. Public health is a broad field, so I would urge other students to use their internship to try something new!

Building community capacity

In addition to data mining and analysis, I also participated in the Worker Justice Committee on a weekly basis. During these meetings, I assisted workers experiencing wage theft, discrimination, and work-related injuries to navigate bureaucratic systems in order to seek justice.

The map represents approximately 2,500 work-related hospitalizations from January – April of 2007 in Texas [map created by Bethany Boggess].
Public Health Significance

Infection Prevention plays many important roles in public health. Throughout my time in Infection Prevention, I believe that all 10 Essential Public Health Services were performed at some time.

I was specifically involved with evaluation and research aspects of public health as I worked on Project RITE. Learning about the processes of maintenance and insertion of central lines and catheters was only the first step—ultimately, effective care involves altering behaviors and improving coordination of care between everyone caring for the patient. I helped design survey tools to quantify relationships between care providers and designed interviews that attempt to better understand attitudes and behaviors of front-line care providers. Hopefully, these tools can provide important insights into how care is provided and more importantly, suggest interventions to improve patient outcomes.

Practicum Highlights

- Project RITE kick-off event with over 400 Parkland employees
- Worked with a broad range of hospital staff from front-line providers to administrators to epidemiologists

Advice for Future Students

- Understand what your goals are and be aggressive in gaining the experiences and knowledge you need to achieve them; you will learn more and have a richer practicum experience for your efforts

Reducing Infections Together in Everyone

By: Robert Connally

I worked with Infection Prevention at Parkland Hospital in Dallas Texas throughout the summer. Infection Prevention seeks to ensure compliance with hospital policies and procedures that affect patients at risk for hospital acquired infections.


I learned about how the different providers—nurses, doctors, patient care technicians, transporters—impact patient care and how complex preventing infections can be in a hospital setting.

Hand hygiene is the most effective method for preventing hospital acquired infections. Photo courtesy of Robert Connally

Hand hygiene is the most effective method for preventing hospital acquired infections. Source: http://500px.com/heARTone

Infection prevention is a team sport. Source: http://500px.com/heARTone
Adaptation of CATCH Program for Faith-Based Youth Groups

My practicum at the Michael and Susan Dell Center for Healthy Living focused on research for and creation of an obesity prevention toolkit for faith-based communities adapted from the school-based CATCH program (Coordinated Approach To Child Health). CATCH is a childhood obesity prevention program currently targeting preschool, elementary, and middle school children.

A lack of health education and opportunity exists in churches, even though studies have found that youth who attend church have an increased risk of obesity than youth who do not attend church.

I was taken on this summer to begin developing a CATCH faith-based toolkit that will eventually be made available for churches on the CATCH website. I developed the beginning stages of 5 parts of the toolkit: Nutrition Kit, Physical Activity Kit, Sunday School Lessons Kit, Resources Kit, and Environmental Changes Kit.

Advice for Future Students

Your practicum can be a great way to make contacts in the area of public health in which you have an interest. Make sure to choose a host organization you can see yourself working with after graduation.

Your practicum can also be a great start for generating a thesis idea. Speak with lots of organizations to find which one does the most work related to your interests, and find the department that can give you a practicum task that you can see potentially developing into a thesis project.
Hispanic children with ASDs

Autism spectrum disorders (ASD): an emerging public health crisis
By: Liyun Fan

ASD is the fastest growing developmental disability with a 1,148% growth rate (Autism Society, 2013). Hispanic population has the largest increase in ASDs diagnosis (CDC, 2014). It is necessary to point out that within 10 years, around 500,000 children with ASD will become adult. The unemployment rate for ASD adult is very high, 80% of ASDs adult are living at home (Peete, 2010).

My practicum is implemented from a case and control study originated from UT Health Science Center-San Antonio, STEER program. It is clearly the genetic components to cause autism, while there is a substantial fraction of autistic cases are due to chemical exposures in their early life. The major breakthrough of my study of autism is a quarter of Hispanic autism children likely to develop conditions if their mothers were exposed to certain pesticides and using certain procedures during pregnancy; or Autistic children underwent certain diseases in their early life.

Public Health Significance

- **Monitor** the prevalence of ASDs prevalence among Hispanic community in Texas border regions.

- **Diagnosis and investigate** ASDs by doing multiple questionnaires and gathering biosamples to recognize conditions.

- **Research** for new environmental risk factors that are different from other various researches in epidemiology studies.

- **Link** low income Hispanic families access to health services for earlier diagnosis of ASDs.

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Duties during practicum

- Wrote coding book, set up database and revised a master questionnaire for a cohort pilot study of ASDs.
- Provided preliminary analysis and wrote METHODS and RESULTS parts for an unpublished paper.

Advise for future public health practitioner

The biggest issue for Hispanic community is lack of the awareness about the symptom of ASDs. In most Hispanic families, if parents see some differences about their children, they usually think it is normal for kids to act in certain ways. In order to power the Hispanic communities to become more aware of ASDs we do need more pediatricians and health careers come to Hispanic communities and give the education about ASDs in Spanish.

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Autism Awareness symbol
Always Unique Totally Interesting
Sometimes Mysterious
Image: designbyravenmuse.com

Image: iStockPhoto

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Viral Diarrhea in Cancer Patients

By: Natasha Ghosh

Background: Viral enteropathogens such as Norovirus (NoV), Rotavirus (RV) and Adenovirus (AV) are major causes of infectious diarrhea in children and adults in the US. In immunocompromised and cancer patients, viral enteropathogens can contribute to mortality and morbidity. We hypothesized that in immunocompromised and cancer patients, infection with NoV, RV, AV results in atypical manifestations. In a retrospective study, we identified cases in which NoV, RV and AV were identified by PCR or ELISA in stools submitted to the clinical microbiology lab. We studied the risk factors and clinical characteristics of presenting illness in this high risk population.

Objectives:
- To determine the frequency and risk factors of viral associated diarrhea in immunocompromised and cancer patients.
- To describe the pathological features seen on intestinal biopsies obtained from patients when available.

Results: Total of 81 cases of viral diarrhea were identified and included 48 cases of NoV (59%), 24 cases of RV (29.6%) and 9 cases of AV (11%). Two cases had more than one viral pathogen identified. All except one of the infections were acquired in the US. Further statistical analysis is in progress to identify risk factors and describe clinical presentation.

Public Health Significance:
Diarrheal disease in cancer patients can be due to multiple causes including chemotherapy related toxicity, use of antibiotics, radiation, enteral feeding, microbiome related dysbiosis and infection with opportunistic pathogens, particularly in heavily immunosuppressed patients.

In this study we show that cancer and immunocompromised cancer patients are at risk for infection with common viral agents of diarrhea. In the absence of specific therapies, prevention of viral associated diarrhea is of great importance in this patient population.

MDACC is one of the top cancer care centers of the nation. The organization strives to treat cancer patients as well as conducts research related to cancer and other diseases. It covers most of the essential public health services and has an array of publicly available resources for future doctors and scientists.
Epidemiology of Combat-Related Injuries

**Practicum Highlights**

- Observed groundbreaking research projects from inception to action
- Attended weekly scientific program meetings to review various research projects conducted by the Institute
- Worked with a diverse group of public health professionals; military (foreign and domestic), contractors, and civilians

**Lessons Learned**

Education is key to opening doors; however, the classroom does not completely prepare you for success in the workplace.

When a job opportunity lists experience as a required attribute, this is critically different from a degree and is very important.

In short, nothing can truly replace experience. When first starting out, observe the culture of the organization you serve, determine who the experts are and seek guidance. These elements are key to starting off on the right foot.

**Investigation of Military Combat-Related Injuries**

**By: Brooke Gillespie**

At the Army Institute of Surgical Research I worked closely with a team of Biostatisticians and Public Health professionals on various military related epidemiological issues. The projects that I worked on were focused on Injuries to Women in Combat (WIC), Service Member Genitourinary Injury and Mental Health (GIMH), and Causes of Death in Military Working Dogs (CDMWD).

For all three studies, I developed a literature review of the current information on each topic.

**Public Health Significance**

Reviewing the Essential Services of Public Health (ESPH), the Epidemiology and Biostatistics Department of ISR performs all of the 10 services mentioned. Since all of the projects at ISR start and finish here, the organization must guarantee that all of the ESPH are met to properly perform and complete the studies. ISR is able to ensure that all 10 services are met for the military members by employing personnel from various backgrounds that use their diverse expertise to address each of the ESPH.

Once a thorough literature review was completed, paper backgrounds for the WIC and GIMH studies were completed. For the CDMWD study, a database was formed and data abstraction will soon commence.

The final products that I produced for ISR are the paper backgrounds. They demonstrate the overarching knowledge that I have gathered while at the Institute.

However, since my experience at ISR focused on literature reviews and paper backgrounds, my practicum experience most closely relates to the investigation of health problems and health hazards in the military community.

By completing the investigation step of the ESPH, I was able to establish the foundation of knowledge for the projects. This enables the other team members to move forward to create practical and innovative ways to address the issues at hand.
Pilot Study of Women with Disabilities Living in Developing Countries

By: Tahani Hamdan

I worked with the Center for Research on Women with Disabilities (CROWD) at Baylor College of Medicine helping to write grant proposals for research on women with disabilities living in different countries.

My committee addressed women’s health issues of sexual, reproductive, and lifestyle.

CROWD writes grant proposals to conduct studies in different countries on women’s pelvic health issues.

With CROWD, I was involved with brainstorming various ideas, forming the Consumer Advisory Committee for the Christopher Reeve's Foundation, and conducting a pilot study of women with disabilities living in Palestine. The pilot study that I am conducting in Palestine will be used to develop further studies on women with disabilities living in Palestine as well as innovations to ease the burden of living with a physical disability in a developing country.

Public Health Significance

This practicum gave me the hands-on experience to investigate and diagnose the geographic, social, and cultural issues affecting women’s health globally. Interviewing women living with disabilities in Palestine and discovering the common complaints of daily life that affect health.

The pilot study I conducted in Palestine for CROWD will be used to implement further research in Palestine and around the world.

Overall, this practicum was based on research for future studies and development of grant proposals.
Public Health Significance

My practicum experience relates to research for new insights and innovative solutions for chronic health conditions and disabilities such as Spina Bifida, which will eventually lead to linking people to the needed personal health and community health services.

TCH contributes to public health by informing, educating, and empowering families and people about the life-long complications and morbidity of spina bifida. They diagnose and investigate health problems as they develop in chronic health conditions. They also monitor health status to identify community health problems for youth and adolescents with spina bifida and other neurodisabilities.

Quality of Life in Spina Bifida Patients: A Public Health Issue

By: ZENAB IDRIS

At the Texas Children’s Hospital I worked on documenting the health outcome and quality of life of youth and adolescents with spinal bifida (a chronic neurodisability).

The clinical researchers here at TCH diagnose and investigate health problems, as well as monitor health status within communities.

My duties included data abstraction and data entry as well as review of articles to pull up all known information on the quality of life in Spina Bifida patients.

The final product was a development of a database that can be used for clinical, research, and public health purposes.

Our major finding was that documenting the health outcome of children and adolescents with chronic health condition and disability is a public health issue since these individuals are living into adulthood.

Advice for Future Students

I had a wonderful experience at the Texas Children Hospital! One advice is to ensure you plan well ahead for your practicum to get the best out of it, and ensure to explore the practicum website at UTSPH.

Special events

One highlight from my practicum was that I gave a presentation on my findings to my team, which was quite exciting and informative!

- I also got to network with experts in their respective fields!

Notes:

- www.mountainislandweekly.com
- www.sbstl.com
PEDiATRIC TB/HIV PROGRAM EVALUATION

By: Grace Kisitu

I assessed the performance of a multinational pediatric TB/HIV care program in southern Africa.

Together with my preceptor, we reviewed and modified the TB program indicators. Data on the TB indicators was generated for three HIV/TB care sites in three countries.

I reviewed the TB indicator performance of each of the sites, made comparisons with WHO recommended targets, and also compared the performance with other TB/HIV care programs.

Overall TB screening and access to TB treatment for HIV+ children was good. However, utilization of available TB diagnostic investigations was low.

I made recommendations to improve the TB diagnostic algorithm in order to maximize utilization of the available TB diagnostic tests.

Public Health Significance

Tuberculosis is a recognized public health burden in HIV infected children, living especially in low income countries. Early detection and treatment of TB significantly lowers mortality especially in HIV+ children.

My practicum experience relates most closely to PHES no. 9: Evaluate effectiveness, accessibility and quality of personal and population-based health services. My contribution from the practicum should improve the treatment experience of HIV+ children and improve their survival.

Baylor College of Medicine collaborates with a network of HIV care organizations to expand access to HIV treatment and care services for HIV+ children globally.
PREPARING FOR...

Harris County Psychiatric Center - Emergency Operations

By: Antonio Leonardi

My primary function at the Harris County Psychiatric Center (HCPC) was to assist in the re-design and implementation of the hospital’s Emergency Operations Plan. This consisted of a review and revision of the detailed documents that direct the actions for all individuals involved with the mitigation, preparedness, response and recovery of emergency events; in addition to organizing the allotment of equipment and supplies which allow for operations to progress in the face of catastrophe.

The results of the improved plan should not only benefit the HCPC in times of crises, but also those within the University of Texas Medical System who may benefit when their capabilities have been stretched beyond their capacities.

Public Health Significance

This Practicum product is integral to several essential public health services. Most notably it develops a plan/policy that bolsters both individual and community health endeavors.

The HCPC is a medical facility dedicated to the promotion of the mental health and well-being of the individuals within our community. As a result, it must continue to provide its services almost regardless of any external factors. Therefore, the emergency plans and policies that have been developed and implemented are integral to its continuity of care.

Additionally, the HCPC is a member of several Houston Medical Center groups, and the lessons learned by one are shared to all and as a result promote the overall health and safety of our city.

Practicum Highlights

- I had the opportunity to experience first-hand the civilian side of emergency preparedness and response planning. As a result I have learned how to fill the gaps in communication that arise between organizations in times of crisis and chaos.
- Hopefully the effort we put in this summer will be for naught; but should the occasion arise, the highlight will be the benefit derived by others.

Advice for Future Students

Find a practicum that challenges you.

Typical cycle of emergency management operations.

Photo courtesy of Grant County Emergency Management, OR

http://www.gcoregonlive2.com/svc_display.php?id=645
Inquiry of Tobacco Control over Texas

By: PREETHI MENON

Electronic cigarettes are a public health hot topic right now, and the susceptible population of youth and young adults are experimenting with this product and inherently developing a nicotine addiction that could later translate to conventional cigarettes.

During my practicum experience, I worked with in obtaining research from different aspects like marketing, toxicology, constituents and health effects. After gathering the information, next step was to focus on how to move forward and create regulation on electronic cigarettes.

I was exposed to the political side of public health where I used the information I had found through research to speak with political officials to see what could be done to move forward on electronic cigarette regulation. I also was able to use social media to disseminate research findings and harms to the public.

Public Health Significance

The public health essential service that most closely relates to my practicum is researching for new insights and innovative solutions to health problems, informing, educating and empowering people about health issues, developing policies and plans that support individual and community efforts, and enforcing laws and regulations that protect health and ensure safety.

During my practicum, I began during research on gathering as much information as I could on electronic cigarettes. After accumulating all the research and coming to a conclusion that electronic cigarettes do cause harm to the youth and young adult population, the next step is to inform, educate and empower the public about the harms of the product. This was done through Twitter where I used the official account of TCORS to disseminate information to the public.

The last two steps are what I am working towards which is to create a policy and then enforce the policy.

Lessons Learned

• People are willing to help; all you have to do is ask. It may be intimidating to ask professionals, but everyone is willing to provide you with the information you need if you show interest. It’s a valuable lesson I learned this summer.
Infectious Disease Investigation

Practicum Highlights

- Worked in over 60 investigations of reportable conditions.
- Attended Emergency Preparedness Meetings.
- Participated in field trips to collect samples from patients and to evaluate Infection Control programs in hospitals.

Advice for Future Practicum Students

- Be pro-active when searching for your practicum. Research, call, email, visit and do not give up trying to find what you want.
- Be excited! The practicum is a great opportunity to grow and gain more experience in a topic you are very interested in.

Working as an Epidemiologist in the San Antonio Metro Health District (SAMHD)

By: Gretchen Rodriguez

Metro Health Epidemiology Division protects San Antonio and Bexar County residents and visitors from disease outbreaks. In April 2014, reporting of Multidrug-Resistant Acinetobacter (MDR-A) and Carbapenem Resistant Enterobacteriaceae (CRE) became mandatory for the State of Texas. During my practicum I was in-charge of investigating all MDR-A and CRE events for San Antonio and Bexar County. The investigations consisted of analyzing laboratory results to determine if the events were confirmed, probable or not cases and interviewing patients, physicians, infection control practitioners and medical labs to obtain required information. In addition, I assisted other Epidemiologists in the investigation of Pertussis, Amebiasis, Cyclosporiasis, Hepatitis and Typhus fever events.

Working with the San Antonio Metro Health District was an amazing learning experience that allowed me to apply the knowledge and skills developed in Public Health courses in a real-life setting. It definitely solidified my interest in Epidemiology and Disease Investigation.

Public Health Significance

The Epidemiology Division investigates confirmed and suspected cases of infectious diseases and conditions that are reported by physician’s offices, hospitals and medical laboratories. This responsibility is closely related to the Public Health Essential Service of: “Diagnose and investigate health problems and health hazards in the community”. The Epidemiology Team collects and examines data to determine the existence of trends and ensure that actions are taken to prevent infectious disease outbreaks in the area.
Pathogenisis of *Clostridium difficile* Infection

**Duties**
- Conducting patient interviews and follow ups
- Data extraction and analysis
- Participating in the hospital research team meetings and journal club
- Designing and polishing clinical studies
- Data analysis and preliminary manuscript write up

**Advice for Future Students**
- Having a good mentor is extremely important, listen to their advice and ask questions
- Treat your practicum like a career. If you really devote yourself to the topic and follow through, you will learn much more

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**Pathogenesis and Humanistic Outcomes of *C. difficile***

**By: Shephaly Soni**

*Clostridium difficile* is the number one hospital acquired infection in The United States. This disease is unique because the bacteria produces virulent spores that can exist in harsh conditions as well as multiple toxins. *C. difficile* infection (CDI) is treated with antibiotics and remarkable results have been seen using Fecal Microbiota Transplant therapies.

The studies I am involved in focus on various aspects of CDI including recurrent infections and health concerns of the patients. This research is hopefully the start of addressing patient education regarding hospital acquired infections. I am primarily investigating the health concerns of patients with CDI along with the various forms of recurrence. I aid in the development of study materials, carry out patient interviews, and conduct preliminary data analysis.

Currently, we are finishing enrollments for the pilot phase.

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**Public Health Significance**

The following Essential Services of Public Health are most relevant to my practicum:

1. **Monitor** health status to identify community health problems
2. **Research** for new insights and innovative solutions to health problems

*CDI* is extremely prevalent in the hospital environment. The virulence of *C. diff* requires infection control to be diligent. Our patient population, primarily elderly individuals with several comorbidities, requires a unique approach to education and treatment.

The *C. difficile* research team contributes to overall public health by monitoring various strains of the pathogen in the hospital environment. Additionally, we research the spectrum of CDI- from its epidemiology to microbiological characteristics. The combined efforts of each department is key to the reduction of CDI.

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Hand washing is the most effective prevention measure. Transmission route is fecal-oral.

Down syndrome In Children

Different risk factors of Down Syndrome in Children

By: Samrita Thapa

Basically literature review and data input had been the main duties throughout these two and half months under the supervision of my community preceptor Dr. Kathryn Ostemaier who is a clinic chief at the Down syndrome clinic of Houston, Texas Children Hospital (TCH). Through this repetitive act of literature review, patient’s chart reading and data abstracting and inputting, we are trying to find the main risk factors of Down Syndrome (DS).

Public health issue for our work is finding the risk factors for Down syndrome among children.

Different approach are taken by TCH to address are research, diagnosis and investigate, inform, educate and empower the patients and their parents.

My main duties were data abstraction from patients chart and data input in the database.

Public Health Significance

Since the beginning of practicum, I have indulged myself in article research about different risk factors of DS. With the combination of literature search and data collection from electronic medical record, I have been able to acquire knowledge about this developmental issue.

Out of ten public essential health services, my practicum hours were mainly dedicated for research.

Different Public Health Essential services that most closely relates with TCH are research, diagnosis and investigate, inform, educate and empower and monitor health.

I was able to understand that out of many comorbidities of DS, sleep apnea and respiratory disease are related to low developmental scores in children with Down syndrome.

Special events/ duties/ highlights during your practicum

- Literature research using database like Medline and Pubmed.
- Data collection from electronic medical record

Lessons Learned [OR] Advice for Future Practicum Students

- Theories are important but practicum experience polishes our knowledge to apply in the real world.

NDSS founded the Buddy Walk® to spread mission of promoting value, acceptance, and inclusion of people with Down syndrome at local level.
Source: ndss.org

A mom with her DS child Source: ndss.org
Chikungunya virus is a virus that is translated by the *aedes egypti* and *aedes albopictus* mosquitoes. In April of 2014, the first cases of CHIK-V were identified in the Dominican Republic. UTMB and UTSPH implemented a surveillance project to learn more about the disease. I worked in a hospital setting interviewing patients and collecting serum samples. The interviews will be used to create a stronger case definition of the disease and the samples will be used to learn more about the virus. I also visited housing communities of sugar cane workers and captured mosquitoes. The mosquitoes will be used to learn more about the vector of the disease. Findings will be presented in October 2014.

**Public Health Significance**

**Monitor health status to identify community health problems:** Over 5 years, this project will be doing disease surveillance on febrile patients. We will diagnose them via a blood test and compare with their hospital diagnosis.

**Inform, educate and empower people about health issues:** While collecting mosquitoes in the bateys, we also educated people on the importance of mosquito nets and the dangers of standing water.

**Research for new insights and innovative solutions to health problems:** With the data collected, we will hopefully create some form of vaccine or treatment for the Chikungunya Virus. Also, by studying the vector, we can see if there is any way to curb the vector population, or even make the mosquito not a viable vector for the virus.

**Sugar cane housing community:** site of mosquito collection.  
Source: Kaska Watson
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/