

Boston University School of Public Health

Student Practicum Abstracts

Spring 2014

BUSPH STUDENT PRACTICA SPRING 2014

The BUSPH Office of Public Health Practice is pleased to present the Spring 2014 Student Practicum Abstract Book featuring students' practicum experiences. Our office would like to congratulate this semester's practicum students for their accomplishments and express our appreciation to the agencies and organizations for their commitment to the BUSPH practicum program and for providing our students with valuable, hands-on public health experience.

Where in the world were BUSPH spring practicum students?

29 Cities and Towns

9 States across the U.S.

10 Countries



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Name: Aguirre, Armando
Practicum Site: Boston University School of Public Health
Location: Boston, MA United States
Title: Research Assistant

Introduction: The Data Coordinating Center (DCC) at Boston University's School of Public Health supplies a range of data management and programming services to research projects in areas as manifold as aging, infectious disease, clinical trials, and genetics. This practicum's goal was to provide data management support for two studies being conducted in Russia: ARCH Russia, a cohort study assessing the effects of heavy alcohol consumption upon HIV symptoms in HIV+ individuals, and ARCH Russia ZINC, a randomized trial nested within the cohort study investigating the effects of zinc supplementation on the HIV symptoms in persons HIV+.

Methods: Under the guidance of the director of the DCC, support consisted of (1) conducting frequency checks with SAS on study data for quality control purposes, (2) testing electronic questionnaires for accuracy in skip patterns and question format, (3) creating labels and formats in SAS for study variables, and (4) annotating study questionnaires. Participating in monthly meetings and weekly teleconference sessions also served to inform the direction and scope of my activities.

Results/Outcomes: The four principal deliverables of this practicum included (1) creating a study binder for ARCH Russia, (2) testing two electronic assessments for ARCH Russia ZINC, (3) annotating a number of questionnaires for ARCH Russia ZINC, and (4) assisting in the creation of SAS programs for checking data quality for both trials. Taken together, these deliverables contributed to the DCC's continued provision of high-quality data management services.

Name: Huang, Yi
Practicum Site: Boston Children's Hospital
Location: Boston, MA United States
Title: Intern Data Analyst

Introduction: Standardized Clinical Assessment and Management Plans (SCAMPs) serve to take a relatively heterogeneous patient population and through a process of iterative analysis and modification of standardized assessment and management algorithms. It is a quality improvement initiative that aims to optimize care delivery for patients iteratively over time. I worked in Boston Children's Hospital's SCAMPs data analysis group for my practicum. The purpose of this practicum is to work as an analyst in several SCAMPs projects.

Methods: 1) Conduct Data Cleaning for Primary Care Physicians (PCP) and Extracorporeal Membrane Oxygenation (ECMO) projects using SAS Enterprise and SAS. SAS programming including using SQL and MACRO coding is applied. 2) In Distal Rectal Fracture (DRF) project, develop links between SAS, Excel and Visio, in order to better visualizing data analysis results. 3) Create Bland-Altman plot for DRF diagnosis to check the consistency of diagnosis between physician and Research Assistant. 4) Analyze data in hypertrophic cardiomyopathy (HCM) project based on the algorithm of genetics testing for HCM patients.

Results/Outcomes: 1) I assisted in PCP data cleaning and developed a SAS coding worksheet for ECMO data cleaning. 2) I designed SAS programs to output analysis results into Excel, and developed Excel-Visio links for 19 algorithm flowcharts in DRF. I conducted a presentation to introduce the technique to colleagues. 3) I created the Bland-Altman plot for DRF diagnosis using SAS, and write a report to inform the physicians about diagnosis inconsistency. 4) I presented the results of genetics testing in the HCM flowchart.

Name: O'Donnell, Kevin
Practicum Site: Boston University School of Public Health (BUSPH)
Location: Boston, MA United States
Title: Research Team Member

Introduction: Recent history has led to the need to find alternative means to generate electricity. Wind turbines are among the developed solutions. Concerns have been raised regarding the effect of the level of audible noise and infrasound generated by the turbines on human health. Recent data on health impacts of turbines on local populations are incomplete and methodologically fraught with difficulties.

Methods: In order to evaluate 1) the ability of boards of health (BOH) to collect and respond to turbine-related complaints, and 2) relationship between physical turbine attributes and complaints, a survey tool was administered to BOH of cities and towns in which turbines are located. Publicly available population and geographic data were obtained from MASS GIS and MassCEC to create a dataset that contains the turbine height, power, location, and land use and demographics of the populations to the 44 on-shore wind turbines in MA. We report the results of the survey.

Results/Outcomes: Of the 16 BOH responding to the survey, 13 report no complaints regarding turbines. One respondent BOH forgot about the turbine in town; other survey respondents deferred to other public facility departments: municipal light company, building departments; and others suggested that there were other matters that needed the BOH attention. Qualitative data generated from the survey suggest that the involved BOH may not be fully adept at addressing issues regarding energy generation and wind turbines and may in fact not have the available capacity to address these issues given other demands that boards are mandated to address.

BIOSTATISTICS

Name: Papoian, Vardan

Practicum Site: Massachusetts General Hospital

Location: Boston, MA United States

Title: Effects of Cushing's disease on long term quality of life.

Introduction: Massachusetts General Hospital is the oldest teaching hospital of Harvard Medical School and a national leader in medical research. This project was a collaborative effort with the Cushing's Support and Research Foundation (CSRF) to better understand the association between the quality of life of people affected with Cushing's Disease/Syndrome and their demographic, disease and treatment factors.

Methods: The project required a comprehensive literature review to understand the key points that needed to be addressed in our study. Working closely with the principle investigator, I was responsible for communicating with the multiple researchers in (1) creating a measurement tool, (2) developing the online survey, (3) writing the IRB protocol, (4) spot checking the collected data, (5) performing the initial analysis and (6) writing an abstract and manuscript.

Results/Project Outcomes: After approval of the IRB, CSRF members were contacted for participation in our study and we were able to enroll 300 participants. A preliminary analysis of the data was performed which showed that the number of years that the patient went undiagnosed was an important contributor to long term quality of life, regardless of the current remission status of the disease. An abstract was prepared and submitted for a poster presentation at the Annual Clinical Congress held by the American College of Surgeons. The project is continuing as a comprehensive analysis is being conducted and a formal manuscript is being prepared for submission to a medical journal.

ENVIRONMENTAL HEALTH

Name: Bruestle, Sydney

Practicum Site: Boston Children's Hospital

Location: Boston, MA United States

Title: Intern/Research Assistant at the Pediatric Environmental Health Clinic at Boston Children's Hospital

Introduction: The Pediatric Environmental Health Center (PEHC) at Boston Children's Hospital provides specialized care for children made ill by their environment. Through immersion in the PEHC, this practicum provided an overview of pediatric environmental health, highlighted the strengths and limitations of a clinical care approach to managing and preventing exposures, and demonstrated the multidisciplinary approach necessary to successfully combat human health threats related to the environment.

Methods: The practicum experience included detailed education on childhood lead poisoning, the opportunity to counsel families, and the development of a nutrition guide aimed at optimizing dietary intake of calcium, iron, and magnesium in lead-exposed children. Additional work included writing an information guide for the public and healthcare providers on trichloroethylene (TCE) exposure, for inclusion and distribution through the nationwide network of Pediatric Environmental Health Specialty Units (PEHSU).

Outcomes: Direct family counseling led to exposure cessation or avoidance, and provided a contextual basis in which families could better understand the health implications of exposures. The nutrition guide improved families' ability to provide their children with optimal diets that reduce lead absorption and that may mitigate health effects. Once published, the TCE fact sheet will serve as an ongoing resource for the public and healthcare providers alike, thereby greatly expanding the reach of subspecialists in the PEHSU network.

Conclusion: The PEHC practicum not only underscored the role of a specialty referral center in managing environment-related childhood illness, but also highlighted the importance of an upstream, public health approach to prevention.

Name: Chiger, Andrea

Practicum Site: Boston Housing Authority

Location: Roxbury, Massachusetts, USA

Title: Characterizing hoarding behavior in Boston Public Housing

Introduction: Hoarding is a serious problem that can lead to profound public health and safety risks such as increased volume of flammable materials, insect and rodent infestation, presence of rotting food and trip or crush hazards. This is especially true in high-density living situations, such as those that occur in urban public housing developments. Boston Housing Authority (BHA) managers, residents and community health workers have identified hoarding behavior as an issue of concern. The objective of this practicum was to estimate the prevalence of hoarding in four BHA developments.

Methods: We created a database that includes data we extracted from annual living unit inspection reports and pest service records for all 1623 units in four housing developments, from April 2011 to March 2013. We coded the data based on indicators of hoarding behavior (e.g. notations of clutter, refusal of entry) and/or poor sanitation. Units with a potential hoarding issue were identified by qualitative (open-ended text notations) and quantitative (frequency count) assessment of the data.

Results/Outcomes: Analysis is ongoing. Our findings will be used to estimate the prevalence of hoarding in public housing with diverse, low-income populations. They will also inform the next study phase, which aims to verify our estimates and build a replicable hoarding intervention and training program for Boston Housing Authority staff.

Name: Chung, George

Practicum Site: Abington, MA Board of Health

Location: Abington, MA United States

Title: Food Safety Intern

Introduction: The Abington Board of Health serves to protect and promote the health and well-being of the residents of Abington. Environmental Health is a critical component of its mission in protecting the public. It does this through the enforcement of state and federal laws, codes, local ordinances and regulations around safety including for food establishments, swimming pools, housing etc.

Methods: Work was conducted alongside a Health Agent of Abington and included assisting with inspections of food establishments, housing, tattoo shops, tanning facilities, septic facilities etc. During the practicum the following tasks were completed: researching and becoming familiar with state and federal food codes, fielding and investigating public complaints regarding food establishments as they come through the office, and conducting scheduled and non-scheduled inspections of food establishments. Additionally, food establishments with a record of repeated violations were documented and tracked.

Results/Outcomes: By the end of the practicum, a report and a food safety compliance checklist was composed delivered to the Health Department and the food establishments located in Abington. The report identified common food code violations that were documented during inspections, provided possible solutions for food establishments to avoid committing violations, and provided an educational component, in terms of public health and safety and its relationship to food borne illnesses and pathogens.

ENVIRONMENTAL HEALTH

Name: Faye, Elizabeth

Practicum Site: Boston University School of Public Health

Location: Boston, MA United States

Title: Instructional Designer/Technical Content Coordinator

Introduction: Some faculty at Boston University School of Public Health set out to develop an academic tool that would enable students to both learn and apply public health knowledge in a practice-oriented, virtual setting and develop valuable critical thinking skills in the process. The goal was to develop an online learning tool that integrates knowledge and skills from the different public health departments based on a real case of human health risk assessment (HHRA) undertaken at the South Weymouth Naval Air Station (SWNAS) in Massachusetts.

Methods: I conducted a comprehensive review of all records pertaining to the operation, closure, and re-development of SWNAS. Materials were organized into a content outline and subsequent storyboard in order to help visualize the case study and how it would unfold as an online module. I performed a literature search focusing on five contaminants of concern from SWNAS – PCBs, arsenic, lead, manganese, and benzo(a)pyrene. Using eLearning software, I developed the case study into an online module, which required further development of interactivity and multimedia tools.

Results/Outcomes: The case study leads students through a series of interactions that explore key steps in the HHRA. The student will be challenged to confront conceptual questions and must make decisions to work through the case. Links to carefully selected resources will provide students with the tools needed in order to effectively address questions posed. Feedback will be offered throughout the case study to provide reinforcement of the learning objectives. The online module has a projected date of completion of August 30, 2014.

Name: Gao, Tianshuang

Practicum Site: Shenzhen Safeway Technology Service Co., Ltd China

Location: Shenzhen, China

Title: Consultant for the occupational exposure evaluation and protection improvement project for an oil production plant.

Introduction: Shenzhen Safeway Technology Service Co., Ltd is a professional consultation and training service provider concerned with occupational health and safety. Its consulting services include hazard identification, risk assessment, exposure evaluation, and emergency and crisis management. The project was designed for an oil production plant in Sichuan Province, China. This project includes generating site measurements of occupational exposures, identifying and evaluating the exposures, improving protection methods, and providing adequate occupational safety trainings to the workers.

Methods: Working as a consultant with the project group the following tasks were completed: 1) analyzed site measurements data of the workers' occupational exposures to dust and noise; 2) identified the exposures of concern, and performed a literature review on health effects of these exposures; 3) compared health conditions between exposed site workers and unexposed officers.

Results/Outcomes: The analysis reports will be used as references by the management of the client company, for making decisions on improving workers' protection and/or workers' health related issues. The analysis fact sheet will be part of the education materials for site workers. The training materials (including handouts and slides), regarding noise and dust exposures and their health effects, and necessary protection methods, will be used in workers' training programs in the company.

Name: Kalpas, Laura

Practicum Site: Boston University School of Public Health (BUSPH)

Location: Boston, MA United States

Title: GIS Research Assistant

Introduction: The Boston University Superfund Research Program (BUSRP) has five projects that look at the impact of hazardous wastes on reproduction and development. Project 1 (the BU Children's Health Study) is a case-control study examining the link between various birth outcomes and exposure to Tetrachloroethylene (perchloroethylene, PCE) leached into drinking water from the lining of water distribution pipes. The BU Children's Health Study is also examining a secondary hypothesis regarding co-exposure to air pollution. The purpose of this practicum was to develop GIS-based air pollution exposure metrics for use in the study.

Methods: ArcMap software was used to 1) build a database of 1990 road and assessor's parcel shapefiles for 8 towns in Massachusetts, 2) correct the existing road shapefiles to minimize exposure misclassification, and 3) estimate air pollution exposure metrics for the town of Barnstable.

Results/Outcomes: Final products created through this practicum were corrected road shapefiles for 8 Massachusetts towns (Ashland, Barnstable, Burlington, Dartmouth, Fairhaven, Hanson, Scituate, and Winchester), air pollution exposure metrics (proximity to roads and buffer analyses) for the town of Barnstable, and a written manual of procedures. The shapefile database and manual will be used to complete the exposure assessment portion of the study.

ENVIRONMENTAL HEALTH

Name: Veale, Francis

Practicum Site: Framingham Board of Health

Location: Framingham, MA United States

Title: Framingham Public Health Department - Denture Labs Legislation

Introduction: The Framingham Board of Health observed unsanitary conditions at a local denture laboratory. No mechanism to close the business or require improvement of conditions exists. Oral prosthodontics laboratories are unregistered and unregulated. With 384 dental laboratories in Massachusetts, consumers may easily patronize a denture laboratory.

Methods: Need for legislation was supported by research that demonstrates, 1) lack of existing regulations in many US states, and 2) ease of patronizing unsanitary oral prosthodontics laboratories to obtain dentures without a prescription. Research conducted at university-affiliated prosthodontics laboratories proffer safe practices that mitigate the exposure and health risks to both consumers and employees. I determined exposure scenarios by conducting a toxicological review of the materials and methods surrounding denture construction that lead to potential effects. I also interviewed dental health professionals regarding health outcomes associated with improper acquisition and fit of any oral device.

Results/Outcomes: Effects of frequenting an unsanitary denture laboratory include decreased lung function, silicosis, improper examination for serious oral health afflictions (e.g., cancer), the exacerbation of infection, and potential microbiological infection. Legislation of dental laboratories was developed through collaboration with the State Representative Christopher Walsh's office. The legislation has been favorably recommended by the Public Health Committee and is currently before the Joint Committee of Healthcare Financing. The bill empowers the Massachusetts Department of Public Health to require registration and create regulations for the operation of an oral prosthodontics laboratory. A detailed presentation on the legislation is circulating through the MA State House to further knowledge of the bill prior to vote.

Name: Wells, David

Practicum Site: Boston University School of Public Health

Location: Boston, MA United States

Title: Research Assistant for Research Advisory Committee on Gulf War Veterans Illnesses (RAC) meta-analyses

Introduction: The purpose of this practicum was to analyze the chronic health effects in Gulf War (GW) veterans exposed to low-level sarin nerve gas during the war and to critically assess the adequacy of Department of Veteran Affairs (VA) policies towards addressing the health care needs of these veterans. The practicum also included helping the Research Advisory Committee (RAC) on Gulf War Veterans' Illnesses (RAC) prepare for a committee meeting.

Methods: This critical assessment analyzed published literature concerning Gulf War Veteran's exposure to sarin gas and adverse outcomes on brain imaging, cognitive functioning and brain cancer mortality rates. It also included interviews with medical professionals familiar with neurotoxicology and cancer development. From this analysis, supporting evidence for health care policy for brain cancer in veterans and future epidemiological studies was generated. This analysis is highly relevant due to the increasing incidence of brain cancer mortality in exposed veterans and the need for updated health care policies for these veterans. The practicum also included preparing summaries and assembling binders for the upcoming RAC Committee meeting.

Results/Projected Outcomes: The conclusion of the practicum is that due to the adverse changes in brain imaging, cognitive functioning and increased risk of brain cancer mortality in exposed veterans, VA should conduct an epidemiological study of the prevalence of brain cancer in living veterans and assess current mortality rates in GW veterans. VA policy should also include appropriate compensation and medical care coverage for veterans with sarin-induced brain cancer and other adverse health outcomes.

EPIDEMIOLOGY

Name: Andrews, Danielle
Practicum Site: Boston Medical Center
Location: Boston, MA United States
Title: Research Assistant

Introduction: Boston Medical Center (BMC) has above average readmission rates for oncology patients. Financial penalties are issued to hospitals with higher-than-expected readmission rates, therefore readmissions represent a large burden to patients and the hospital. This goal of the BMC Cancer Center is to create intervention that will reduce readmissions. The purpose of this practicum was to define the factors related to readmissions for BMC patients.

Methods: A retrospective chart review of admissions and readmissions to the Hematology and Oncology service was conducted for patients readmitted from January to June of 2013. My job as the research assistant was to assist in creating a list of determinants, construct a database for data collection, and collect and analyze the data.

Results/Outcomes: The results will be analyzed. Interventions will be initiated to improve hospital efficiency by avoiding readmissions, reduce costs, and increase patient satisfaction.

Name: Benedum, Corey
Practicum Site: Boston Children's Hospital
Location: Boston, MA United States
Title: Predict Project Intern

Introduction: HealthMap is an online disease surveillance system utilizing online formal and informal sources for real-time surveillance of emerging public health threats. The field of digital disease detection has been able to decrease the time between patient and global awareness. The purpose of this practicum was to help create the framework for a surveillance platform to monitor the drivers of disease emergence that precede disease events.

Methods: For this practicum I analyzed HealthMap warnings, which are digital reports with health-related information (e.g., vaccine sentiment), to identify the usability of these reports in conjunction with other data types to identify changes in risk for a disease emergence event. This analysis was further used in the identification of biases within the HealthMap database.

Results/Outcomes: Based on the study of HealthMap collected warnings, an extensive literature review, and discussions for the manuscript, we have drawn several conclusions regarding online surveillance of disease drivers. A driver surveillance system should offer analysts and decision makers' situational awareness for pre- and post-disease events. In the pre-event stage, through proper monitoring high risk areas can be identified as well as the causes for the increase in risk. In a post-disease stage, a driver surveillance program would allow for better allocation and use of resources. Furthermore, interventions would now be able to be tailored to local needs based upon specific drivers of interest. This practicum resulted in the creation of a manuscript which will lay the groundwork for the development of the next frontier of driver surveillance.

Name: Cannon, Kristin
Practicum Site: DM-STAT, Inc.
Location: Malden, MA United States
Title: Data Management/Statistical Programmer

Introduction: The Amiel-Tison Neurological Assessment at Term (ATNAT) is a 45-item evaluation identifying infants at risk for neurological impairment. It has never been used in large-scale research with multiple evaluators and inter-rater reliability for some items is inconclusive. Our goal was to determine to whether the Safe Passage Study (SPS) results are reliable and whether modifications should be made to the scoring algorithm.

Methods: Pregnant women were enrolled into the SPS from the Northern Plains (NP), US and Western Cape, South Africa (SA) and followed through their child's first year of life. The ATNAT was collected by 104 clinical coordinators (CCs) on 6,487 term and 900 preterm infants within 12 to 72 hours post-delivery, age-adjusted to 40 weeks gestation if preterm. A scoring algorithm using 15 of the items categorized infants with signs of neurological impairment. Descriptive statistics were generated to evaluate systematic reviewer bias. Questionable CCs and items were removed so only reliable information is available for subsequent analyses.

Results: The proportion of infants categorized as abnormal was higher than "expected" (44% NP; 76% SA). Five items (fix-and-track, upper limb recoil, popliteal angle, raise to sit, reverse maneuver, Moro reflex) were endorsed at higher than expected rates.

Conclusions: The data suggested poor reliability for the aforementioned items, possibly due to training issues. This investigation was limited because rates of "expected abnormalities" in targeted populations were unknown. In future large-scale research, the aforementioned items should not be included in scoring and only a few expert evaluators should conduct the assessments.

Name: Caputo, Christina

Practicum Site: Boston University School of Public Health

Location: Boston, MA United States

Title: Chronic Kidney Disease in Nicaragua: Developing a Field Ethics Training Program

Introduction: An epidemic of chronic kidney disease (CKD) is occurring in Central America. The epidemic in Nicaragua has been a strong focus of the Boston University School of Public Health (BUSPH) in recent years. The cause of this epidemic is unknown and therefore the potential for many more field studies is great. Each field study will require biological ethics training in order to ensure confidentiality and proper treatment of study subjects. Currently available training programs lack a narrative customized to individual studies and no one specific training plan exists to properly prepare field staff in these studies. Current biological ethics training programs are not customized to these research settings, creating a gap between theory and method. The aim of this project is to develop a training program that incorporates already established NIH and Center for Global Health ethics training with training necessary for BUSPH field studies.

Methods: This program introduces the principles of human research ethics in a field setting with focus on informed consent and the responsibility of research ethics committees. Customizable field ethics training focuses largely on the practical aspects of human subject research ethics, instilling the importance of field research ethics for both the protection of the subject and maintenance of data integrity.

Results/Outcomes: The goal of this program is to provide a supplemental human subject ethics training program that is customizable to each field study, ultimately allowing for field epidemiological studies that maintain the personal rights of human subjects and data integrity simultaneously.

Name: Goff, Jennifer

Practicum Site: Health Map at Children's Hospital

Location: Boston, MA United States

Title: Intern

Introduction: Flu Near You is a flu surveillance system administered by HealthMap and Boston Children's Hospital. Using participant-reported symptoms, Flu Near You graphs and maps this information to provide local and national views of influenza-like illness. The GoViral study combines this online crowdsourced data with diagnostic samples that participants can provide themselves.

Methods: I worked to recruit study volunteers in the Boston area and assembled a rapid flu testing kit and saliva collection kit for each participant. I also developed instructional materials including video demonstrations. Participants reported symptomatic information to the Flu Near You website and then performed the self test and saliva collection. Samples were sent to a laboratory where they were tested by multiplex PCR for twenty different pathogens. I organized, cleaned, and analyzed the resulting data and created summary tables and graphics.

Results/Outcomes: Data analysis is ongoing. Preliminary results show that the public is willing to participate and collected specimens were viable. Future improvements will involve working to increase volunteer recruitment and compliance, as these were some of the challenges of this study. By combining Internet-based participatory surveillance with molecular methods for viral identification, this project will serve to advance epidemiological knowledge of respiratory infections as well as validate approaches that only incorporate self-reported symptom information.

Name: Gopalakrishnan, Chandrasekar

Practicum Site: Boston Collaborative Drug Surveillance Program

Location: Lexington, MA United States

Title: Prevalence of hypercalcemia of malignancy (HCM) among cancer patients

Introduction: Hypercalcemia of Malignancy (HCM) is a relatively common occurrence in cancer patients. It is a severe condition and can be fatal. Increases in serum calcium are caused by bone resorption. Denosumab, a drug used to treat post-menopausal osteoporosis, works by decreasing bone resorption and thus it is hoped that this drug will reduce HCM. One of our study objectives is to calculate annual prevalence of hypercalcemia among cancer patients in the UK CPRD to estimate the public health burden of this illness.

Methods: Perform data validation through review of patient profiles and also conduct statistical analyses using SAS 9.3 to provide annual prevalence of hypercalcemia in cancer cases in the CPRD during the time period 2003 – 2012, by cancer type.

Results: The prevalence rates of HCM in the UK CPRD were marginally higher than those in the US. These differences may be due to a greater proportion of patients with advanced disease in the UK who are treated less aggressively compared to the US. We are currently conducting further analyses to better describe these differences.

EPIDEMIOLOGY

Name: Huang, Qian

Practicum Site: Boston Children's Hospital

Location: Boston, MA United States

Title: work-study internship

Introduction: HealthMap is a freely accessible, automated electronic disease surveillance system that brings disparate data sources together to achieve a unified and comprehensive view of the current global state of infectious diseases. It is also a huge database for researchers who look for specific disease outbreak information. Through an automated text processing system, the data is categorized by disease, location, and species, with details about case number and disease category. The alerts will be displayed by location on the main interface for user-friendly access to the original alert. HealthMap provides a jumping-off point for real-time information on emerging infectious diseases and has particular interest for public health officials, infectious disease researchers and international travelers.

Methods: Basically I worked primarily as an informatics intern and curated the collected news alerts to train the computer. I also corrected some old data in the system that remained uncategorized, especially the alerts of H1N1. Furthermore, I helped to develop Chinese dictionary for the system to better search and target the meaningful news sources from CDC news and mass media news in China.

Results/Outcomes: HealthMap's Chinese feeds database is better organized and the system is able to target the meaningful news more accurately due to the improvement of the Chinese dictionary. From the collected news alerts, study could be conducted to investigate the cause and risk factor of infectious diseases.

Name: Johnson, Caitlin

Practicum Site: Brigham and Women's Hospital

Location: Boston, MA United States

Title: ClimbCorps Evaluation

Introduction: ClimbCorps is a novel public health initiative at Brigham and Women's Hospital designed to improve Boston's cardiovascular health through healthy lifestyle choices, including taking the stairs. To this end, ClimbCorps runs a free stair climbing program called ClimbClub in select Boston office buildings to promote physical activity in the workplace.

Methods: To demonstrate its value, I helped design a research study to evaluate the efficacy of ClimbClub in increasing physical activity and improving the cardiovascular health of participants. Using technology from a behavior analytics company (Ginger.io), we plan to use a smartphone app to deliver surveys that monitor the physical activity and health of participants over a one-month period. During practicum, I helped develop a study design with ClimbCorps and Ginger.io, obtain IRB approval through Partners Healthcare, and prepare resources for study launch, including promotional and training materials. This legwork has positioned ClimbCorps to soon launch Partner Healthcare's first study utilizing smartphones to evaluate health outcomes.

Results/Outcomes: Once a final contract is approved between Partners Healthcare and Ginger.io, this study will be implemented by ClimbCorps to hopefully demonstrate the benefits of stair climbing programs in the workplace. Such evidence would support national expansion of the ClimbCorps program and help promote better health in the workplace, where many employees spend much of their lives sedentary.

Name: Kareem, Mutahammi

Practicum Site: Boston Medical Center

Location: Boston, MA United States

Title: Meta-analysis on the effectiveness of Ultrasound for diagnosing plantar Fasciitis

Introduction: Boston Medical Center is a teaching hospital and a leader in medical research. This project was designed to further medical knowledge in the diagnosis of plantar fasciitis using ultrasound

Methods: This study required a comprehensive literature and a review of the published research in the area. Working closely with the principle investigator (Eugene Kissin), I was responsible for (1) performing a systematic review of the literature, (2) evaluating the current research using the Quality Assessment of Diagnostic Accuracy Studies (QUADAS – 2), (3) extracting the needed from the studies (4) performing analysis alongside statistician and (5) writing an abstract and manuscript.

Results/Outcomes: A systematic review has been performed under the supervision of my primary investigator. We went through the search and analyzed it according to QUADAS protocol. An abstract was written, submitted and accepted by the American Academy of Physiatry. The project will continue as a meta-analysis and a formal manuscript is being prepared for submission to a medical journal.

Name: Khalid, Laila
Practicum Site: Massachusetts Department of Public Health
Location: Boston, MA United States
Title: Volunteer Intern at the Prescription Monitoring Program, Department of Public Health, MA

Introduction: State Prescription Drug Monitoring Programs (PDMPs) are designed to decrease prescription drug misuse by allowing prescribers to identify patients who are going to multiple prescribers and/or multiple pharmacies. PDMP is only effective if information is made available to providers, who in turn utilize it. There is lack of research on utilization of state PDMPs by providers. We examined the frequency and professional designations of prescribers utilizing the MA online PDMP to understand patterns of use prior to the law's implementation.

Methods: We analyzed 2011 and 2012 reports of prescriber logins from the MA PDMP database. We tabulated the number of log-ins of each enrolled prescriber and defined prescribers in the highest quartile of logins as high frequency users. We also analyzed data according to physician specialty.

Outcomes/Conclusion: There was an increase in the number of prescribers utilizing the PDMP in 2012. Among physicians utilizing the PMP, emergency medicine physicians (37.9% in 2011, 29.3% in 2012) made up the largest proportion followed by internal medicine (29.7% in 2011, 31.6% in 2012) and family medicine physicians (17.3% in 2011, 18.8% in 2012). Emergency medicine physicians made up the largest proportion (59.7% in 2011, 48.3% in 2012) of high-frequency utilizers followed by internal medicine (19.4% in 2011, 21.6% in 2012) and family medicine physicians (9.0% in 2011, 10.9% in 2012). Utilization data should be matched to PDMP data longitudinally to identify possible effects of utilization on rates of doctor/pharmacy shopping and other prescribing patterns.

Name: Kishore, Nina
Practicum Site: Boston University Arthritis Center, Boston Medical Center Rheumatology
Location: Boston, MA United States
Title: The Use of Social Media in the Medical Care of Scleroderma Patients: A Pilot Study

Background: Scleroderma is a rare, autoimmune disease more commonly seen among older women, and characterized by fibrosis in the connective tissue layers. The disease is a long-term chronic illness that can lead to severe vascular, pulmonary, and gastrointestinal complications among others. Several studies have found that patients with chronic disease benefit from improved management and communication related to their disease. We are interested in understanding if social media forums like Facebook and Twitter can be used 1) to help patients with scleroderma access information about their disease from reputable sources and 2) to develop social support networks to improve their disease self-management.

Objective: The primary objective of this pilot study is to evaluate the willingness of patients with scleroderma to access social media tools and physician supported social networks where they can learn more about their disease and develop connections for social support groups.

Methods: In this pilot study, approved by the Institutional Review Board at Boston Medical Center, we identified 10 patients with scleroderma in the Rheumatology Clinic at BMC who consented to participate in a 20-minute phone interview. The subjects were asked 10 questions related to their current use of social media and their willingness to use social media for information related to their medical care.

Results/Outcomes: We conducted a literature review of how social media has been used to improve patient care and developed a questionnaire for patients in this study. The pilot study is still in progress and there are no findings to report at this time.

Name: Lammert, Sara
Practicum Site: Massachusetts General Hospital
Location: Boston, MA United States
Title: Predictors of Clinic Non-Adherence in a Boston HIV Clinic

Introduction: Attendance at HIV clinic appointments is crucial for patients living with HIV. Identifying patients at highest risk for appointment non-adherence is important for targeted interventions to ensure retention in HIV primary care.

Methods: A retrospective analysis of appointment non-adherence and subsequent 1-year risk of virologic failure (VF) and sub-optimal follow-up (SOF) in patients living with HIV was conducted at the Massachusetts General Hospital (MGH) Infectious Disease Clinic between January 1, 2012 and December 31, 2013. Each clinic appointment is entered as "arrived," "no-show," "bumped," "cancelled," or "pending" depending on patient status. Risk factors for clinic non-adherence were calculated with chi-square analysis. Logistic regression analyses were employed to calculate odds of VF and SOF in the upcoming year for patients who missed > 1 appointments in 2012.

Results/Outcomes: 8093 appointments were scheduled for 983 patients during 2012. 4718 (58.30%) of all scheduled appointments were arrived, while 1016 (12.55%) were no-show. Patients, on average, had 5.8 appointments scheduled during the year. The number of no-show appointments per patient ranged from 0 to 13. 759 (77.21%) patients were male; 567 (57.68%) were Caucasian. 508 (51.68%) patients arrived for all scheduled appointments. Risk factors for clinic non-adherence include female gender, younger age, HIV transmission, and fewer years since diagnosis. Individuals who missed >1 scheduled appointment during 2012 were 1.26 times as likely to experience VF in the upcoming year compared to patients who arrived at all scheduled clinic appointments; however, this did not reach statistical significance. Barriers to clinic adherence will be surveyed.

EPIDEMIOLOGY

Name: Laws, Margaret
Practicum Site: Boston University School of Medicine
Location: Boston, MA United States
Title: LEAP analysis/ Research Assistant (BUSM)

Introduction: Following evidence that self-management education programs have shown to improve pediatric asthma outcomes, the Lung Center at St. Christopher's Hospital for Children created the Lay-Educator Inpatient Asthma Education Program (LEAP). Trained volunteer lay educators provided supplemental bedside asthma education sessions to families during in hospital stays. 711 families participated in a randomized control trial aimed to assess whether this volunteer based education program improved selected measures of asthma morbidity and management behaviors. The objective of this practicum was to conduct the analysis of the data generated by the LEAP intervention study.

Methods: SAS 9.3 was used to (1) evaluate the study randomization scheme using t-test and Wilcoxon rank-sum for continuous variables and chi-square for dichotomous variables (2) address missing data through imputation methods (3) test the associations between the LEAP intervention and outcome measures pertaining to hospitalization use, asthma self-management, quality of life, and parent report self-efficacy using multivariate logistic and linear regression models. Both intent-to-treat and efficacy analyses were performed on the study data.

Results/Outcomes: This study demonstrated that the LEAP intervention was associated with improved asthma self-management behaviors. Full results from the analysis are presented on the poster only.

Name: Leonard, Patricia
Practicum Site: University of Texas-Austin/Boston University
Location: Austin, TX United States
Title: Research Assistant MassHARP Study

Introduction: As a part of a collaborative effort between the University of Texas-Austin and Boston University, the Massachusetts Health and Relationships Project (MASSHARP) is being conducted to examine the association between health and relationships. Previous research has shown that married people tend to live longer than single people, and the goal of MASSHARP is to determine how relationships, whether heterosexual or homosexual, influence health decisions and overall health status.

Methods: This practicum involved the acquisition of demographic and vital record information for residents of the city of Boston and the city of New Bedford, MA. Mailing information was obtained from a voter registry. A Microsoft Excel macro formula was created to systematically identify potential couples from the data available. Revision of transcripts from previously enrolled participants was also performed.

Results/Projected Outcomes: Each of the couples selected using the developed formula will be invited to participate in this pilot study. A mailer will be sent each address provided and for couples who accept, each partner will undergo an in-depth interview and complete a 2 week online health diary. The direct results of this practicum will be the enrollment of 200 heterosexual and 200 homosexual couples each from New Bedford, MA, and Boston, MA and the collection of novel health and relationship data.

Name: Luo, Mi
Practicum Site: Academic Divisions of the Chinese Academy of Sciences
Location: Beijing, China
Title: Research assistant

Introduction: As part of the world academic frontiers and hot direction analysis report presided over by Academic Divisions of the Chinese Academy of Science. I assisted in the life and medical science department for analysis the screening test for colon cancer in China, UK, US and Japan. The goal of this study is to help forming policy on colon cancer screening test in China. The purpose of this practicum was to help with collecting information and conducting data analysis to find if the screening tests are cost effective.

Methods: 1) Collect the data about the incidence and mortality rates of colon cancer in these four countries since 2005 and make general statistics analysis by SAS to find the difference; 2) Do literature review and summarize on screening method and policy in these four countries; 3) Perform statistical analysis to test the association between screening test and the incidence/mortality rates of colon cancer; and 4) Give some personal suggestion on colon screening test policy in China.

Results/Outcomes: The two sup-report: a. Comparison of incidence and mortality rates of Colon cancer between China and US, UK and Japan and b. Colon cancer screening method and policy in US, UK and Japan, a data analysis report and a series suggestion on colon screening test policy in China will be used by the project's researchers throughout the rest of the study to eventually make policy and strategy of colon cancer screening test in China.

Name: MacIntyre, Terry
Practicum Site: AstraZeneca
Location: Waltham, MA United States
Title: Identifying Factors associated with increased risk for Adverse Events in Phase I Clinical Trials.

Introduction: Phase I Clinical Trials are an important first step to a better understanding of the efficacy of newly developed cancer drug candidates. However, for patients enrolled in these studies, there is also a risk that serious adverse events can occur. A better understanding of patient characteristics that could lead to adverse events would provide clinicians with a valuable screening tool for potential patients. This would help lower the risk to individuals within these trials and increase the number of patients able to complete the clinical trial.

Methods: In this practicum, I worked closely with members of the Oncology Early Clinical Development Team to identify a subset of patient characteristics which could be associated with an increased risk of an adverse event. Once identified, these variables were extracted from the larger clinical dataset for each of 12 phase I clinical trials. These extracted datasets were then combined into an analysis set for investigation.

Results/Outcomes: I developed and validated several SAS programs, which successfully extracted the subset of relevant variables from the larger datasets. I also developed and validated a SAS program to compile a comprehensive final dataset that combines all 12 clinical trial datasets. Logistic Regressions will be performed to identify independent variables that are associated with an increased probability of an adverse event within the clinical trial.

Name: Mahesri, Mufaddal
Practicum Site: Brookline Health Department
Location: Brookline, MA United States
Title: Epidemiology Intern

Introduction: In 2012, the Massachusetts incidence of Lyme disease was 51.1 cases per 100,000 residents, well above the national rate of 7.0 per 100,000. Despite having an efficient Lyme disease surveillance system, cases are identified according to town of residence and not town of exposure leading to inaccurate representation of disease burden in specific regions. To address this, I analyzed Lyme disease surveillance data from several Massachusetts towns to assess if travel history, a risk factor for Lyme disease, was adequately being reported.

Methods: I examined Lyme disease surveillance data included in the Massachusetts Virtual Epidemiologic Network (MAVEN) for 6 Massachusetts towns (Brookline, Newton, Watertown, Arlington, Belmont and Lexington) from 2008 to 2013. Using SAS v. 9.3, I performed descriptive analysis on demographics, travel history one month prior to disease onset and history of tick bites for confirmed cases of Lyme disease in each of the towns.

Results/Outcomes: Among a total of 438 cases of Lyme disease in the 6 towns, 20.1% (N=88) had a positive travel history prior to onset of symptoms while 33.1% (N=145) had missing data. 17.0% reported going to Cape Cod or Martha's Vineyard, while 55.7% of the cases who travelled had no reported destination. Additionally, 22.1% (N=97) of the cases reported a history of tick bite; data for 36.8% (N=161) was unknown or missing. The results provide evidence that considerable data with regards to history of travel and tick bites, important risk factors for Lyme disease, is not being recorded through the current surveillance system in Massachusetts.

Name: Manuel, Matthias
Practicum Site: Boston University School of Public Health / Boston Medical Center
Location: Boston, MA United States
Title: Research Assistant (Data Analyst) - Evaluation of Differences in *S. Pneumoniae* Colonization among Children With and Without Underlying Comorbidities Following the Introduction of PCV13

Background: Invasive pneumococcal disease (IPD) is a serious bacterial disease preceded by nasopharyngeal colonization with *Streptococcus pneumoniae* (SP). Children with certain chronic diseases have increased risk for IPD, but it is not known whether this is because they are more likely to be colonized with SP or because they are more likely to develop IPD following SP colonization.

Methods: As part of an on-going surveillance study of SP nasopharyngeal colonization among children <5 years at the Boston University Medical Center, we compared risk of SP colonization in children <5 years with underlying comorbidities to children without comorbidities. Demographic information and nasopharyngeal specimens were collected from 2,872 children seen in primary care from July 1st, 2010 to June 30th, 2013. Standard microbiologic methods were used to characterize pneumococcal serotypes, and patient records were used to ascertain comorbidities. Statistical analyses were performed using SAS.

Results: In our study population, 937 children (34.5%) had ≥ 1 comorbidity. Common comorbidity classes included asthma/wheezing (46.1%), asplenia (22.7%), prematurity (14.4%), and chronic heart disease (8.3%). Preliminary results indicate that children with asthma (24.0% vs. 20.8%), exposure to tobacco smoke (31.8% vs. 21.4%), genetic disorders (57.1% vs. 21.3%), neuromuscular diseases (33.3% vs. 21.4%) and chronic kidney diseases (33.3% vs. 21.4%) were more likely to be colonized with SP; but children with asplenia (20.4% vs. 21.5%), chronic heart disease (13.7% vs. 21.7%) and prematurity (14.7% vs. 21.9%) may have a decreased risk of SP colonization. Further multivariate analyses will adjust for potential confounders of the association between comorbidity status and SP colonization.

EPIDEMIOLOGY

Name: McBurnie, Amika

Practicum Site: Boston University, Sargent College

Location: Boston, MA United States

Title: Understanding Available Services and Interventions for Victims of Intimate Partner Violence with Mental Health Needs in Low and Middle Income Countries

Introduction: The World Health Organization's Mental Health Action Plan was adopted by the 66th World Health Assembly in 2013. The World Health Organization, along with member states, NGOs, and other stakeholders recognized the importance of mental health on the global health agenda and one major aim is to reduce the treatment access gap for services. This practicum investigated mental health service provision and the treatment access gap in low and middle-income countries (LMICs) with a focus on access to mental health services for survivors of intimate partner violence (IPV). Currently there is a lack of literature centered on treatment of mental health issues in individuals outside of the US specifically in LMICs.

Methods: A comprehensive literature review was conducted to understand existing mental health services and interventions for women who experience mental illness as a result of intimate partner violence in LMICs. Components of the most successful interventions were summarized as a list of recommendations for this group of women.

Results/Projected Outcomes: This review will contribute to the evidence base on available services and interventions for IPV survivors with mental health service needs in LMICs. Findings from this review will serve as input for a systematic review on IPV and mental health to be conducted later this year.

Name: Moodabagil, Nikil

Practicum Site: Veterans Affairs Boston Health Administration, Department of Ophthalmology

Location: Boston, MA United States

Title: Ophthalmology Clinical Research Assistant

Introduction: Studies have found a reduction in intraoperative cataract surgery complications with surgeon experience. However, given the complexity of surgical education and the steep learning curve of phacoemulsification surgery, experience is not the single determinant of cataract surgery complications in a teaching institution. We hypothesized that increasing average tours of duty amongst the attending staff will decrease intraoperative complications in resident-performed cataract surgeries as a result of improved pre-operative, intraoperative and post-operative patient care at the Veterans Affairs—Boston Healthcare System (VABHS).

Methods: All ophthalmologic procedures at VABHS in the month of July of each year from 2004 until 2011 were screened for simple phacoemulsification/intraocular lens implantation (PE/PCIOI) or extracapsular cataract extraction (ECCE). The following primary outcomes were recorded: anterior vitrectomy, posterior rent, anterior chamber intraocular lens, anterior rent with posterior capsular rent or vitreous loss, retinal tear/detachment, retained material, sulcus intraocular lens with posterior capsular rent and return to operating room in 30 days. Complication rates for each academic year were compared according to staffing levels those years from administrative records (i.e. number of attending ophthalmologists on staff, full time/part time status).

Results/Outcomes: Percentage of cases with complications decreased from 23.1% in July 2004 to 8.8% in July 2011. Average tour of duty for all staff increased from 11.9 hours/week to 19.3 hours/week. Percent of attending staff working more than 8 hours/week also rose from 33.3% to 61.9%. Despite these results, the cross-sectional nature of this study limits its generalizability.

Name: Namirembe, Grace

Practicum Site: Massachusetts Department of Public Health

Location: Boston, MA United States

Title: Graduate Research Assistant

Introduction: The goal of this project is to develop a public health surveillance system for adolescents and adults born with congenital heart defects (CHD). According to a CDC report¹, there is currently no population based tracking program that collects data on children and adults with CHD. Other methods estimated an increasing trend in this population. I assisted the senior data analyst at Massachusetts Department of Public Health, Center for Birth Defects Research and Prevention to create a surveillance system for adult and adolescent CHD cases. We focused on using data linkage methods to identify unique individuals across health data sets.

Methods: Using birth, death and hospital records to identify CHD and link them to their birth records in three ways: • Deterministic record linkage: We used conventional merging data steps by first name, last name, middle initial and date of birth to create another data set with CHD cases matched to their birth records. • Probabilistic record linkage: We will use different probabilistic linking methods to identify similar names that for various reasons are not exact but represent the same entity. • FRIL software record linkage (deterministic and probabilistic): We will use Fine-grained Record Integration and Linkage Tool (FRIL), an open source software, to further identify similar names and ascertain the probabilistic matches. FRIL compares records using multiple user-defined parameters for linkage such as search methods, distance functions and decision models.

Results: Results will be presented on percentage of linkage across the data sets Reference: Center for Disease Control and Prevention <http://www.cdc.gov/ncbddd/heartdefects/data.html>

Name: Ogief, Amenawon
Practicum Site: Strategies for Youth, Inc.
Location: Cambridge, MA United States
Title: Database Development Intern

Introduction: Strategies for Youth, Inc. is policy and training organization dedicated to improving police/youth interactions. Taser use by law enforcement agencies has increased drastically in the last 10 years, particularly in school setting. Short and long-term physical harm as well as psychological harm has been readily documented among adults, but not in children. This practicum involved a literature review that examined the physical and psychological effects of taser use against the youth as well as legislation to prevent taser use in school settings.

Methods: A search was performed that examined the incidence and prevalence of taser injuries and death among the youth as well as the increased purchases of tasers by law enforcement agencies using databases: Web of Science, PubMed, Google Scholar, and other reputable news outlet websites (CNN, ABC News and NBC news). The search was narrowed down using certain key words and combination of key words: taser injuries, youth and tasers, increase in taser use, tasers and law enforcement agencies, recent taser deaths of youth and taser use policies. The findings were then summarized.

Results/Outcomes: The analysis of the literature indicates there has been an increase in serious injuries and fatalities to the youth after the introduction of tasers to schools and the increased purchase of tasers by law enforcement agencies. Many states such as Virginia, Florida, and Alabama have proposed legislation limiting use of tasers against the youth; however, many of these bills have failed to be enacted.

Name: Patel, Akshar
Practicum Site: Rhode Island Department of Health
Location: Providence, RI United States
Title: Organization and Implementation of Points of Dispensing Sites for Category A Emergencies

Introduction: The Center for Emergency Preparedness and Response (CEPR) within the Rhode Island Department of Health is the lead for the State's Medical Emergency Distribution System (MEDS) Plan, which details the process to receive stage, distribute, and dispense medical countermeasures and supplies during a public health emergency. Working with the MEDS Coordinator and contract pharmacists, I authored Point-of-Dispensing (POD) Commander Guidebooks tailored to specific Category A biological agents that the CDC's Strategic National Stockpile is geared towards. The Guidebooks will be used during a POD operation for mass dispensing prophylaxis in response to an act of terrorism or large-scale natural disaster.

Methods: I first read all relevant plans and CDC guidance pertaining to each Category A agent, prophylaxis dispensing guidelines, and researched specific FAQs. Then, I refreshed my understanding of the Incident Command System in order to understand how the Federal, State, and local levels of government would be interacting throughout the incident. I also reviewed the State MEDS plan and POD guidance for municipal leadership who run the PODs. Through constant collaboration with the MEDS Coordinator and pharmacists, the guidebooks I created contain a step-by-step approach for POD set up, Just-in-time training of staff, prophylaxis dispensing forms/algorithms, legal references, and waste management documentation.

Results/Outcomes: In some cases, dispensing goals are within a 72 hour window upon recognition of a biological threat so time is of the essence. The guidebooks will assist the State and municipalities to open PODs in a more effective and efficient manner in order to meet these goals.

Name: Pottmeyer, Glenn
Practicum Site: Education Development Center
Location: Newton, MA United States
Title: EDC MetroWest Adolescent Healthy Survey Internship

Introduction: Since 2006, the Education Development Center has been using the MetroWest Adolescent Health Survey (MWAHS) to biennially collect information on risk factors for over 40,000 students (grades 6-12) in the greater Boston area. My role was to assist with the activities surrounding the data analysis and survey development concerning the MWAHS.

Methods: Development of the future MWAHS was carried out by conducting literature reviews on risk factors of interest with a recent emphasis on cyberbullying. Cyberbullying was defined in the MWAHS as "using the internet, cell phones, or other electronic devices to bully, tease, threaten, or spread rumors about someone (including e-mail, chat rooms, instant messaging, social networking websites, or texting)." The assembly of data facts-sheets was also completed, allowing schools to easily see the most prevalent trends pertaining to their school district. Editing, writing, and literature reviews for papers to be submitted for publication are ongoing, and will add to the literature concerning cyberbullying.

Results/Outcomes: The primary outcomes of this internship were to summarize school-specific data on drinking, marijuana use, smoking, sex, and bullying behavior stratified by other variables (such as gender and grade), and to add to the existing body of knowledge on cyberbullying in adolescents. In the survey population, cyberbullying was noted to have increased from 15% in 2006, to 22% in 2012, demonstrating a need for continued research. School-specific fact sheets on these data have the potential to influence community interventions locally, and publications on cyberbullying will fill gaps in the current literature.

EPIDEMIOLOGY

Name: Prado, Maria
Practicum Site: Boston Housing Authority
Location: Roxbury, MA United States
Title: Characterizing hoarding behavior in Boston Public Housing

Introduction: Hoarding is a serious problem that can lead to profound public health and safety risks such as increased volume of flammable materials, insect and rodent infestation, presence of rotting food and trip or crush hazards. This is especially true in high-density living situations, such as those that occur in urban public housing developments. Boston Housing Authority (BHA) managers, residents and community health workers have identified hoarding behavior as an issue of concern. The objective of this practicum was to estimate the prevalence of hoarding in four BHA developments.

Methods: We created a database that includes data we extracted from annual living unit inspection reports and pest service records for all 1623 units in four housing developments, from April 2011 to March 2013. We coded the data based on indicators of hoarding behavior (e.g. notations of clutter, refusal of entry) and/or poor sanitation. Units with a potential hoarding issue were identified by qualitative (open-ended text notations) and quantitative (frequency count) assessment of the data.

Results/Outcomes: Analysis is ongoing. Our findings will be used to estimate the prevalence of hoarding in public housing with diverse, low-income populations. They will also inform the next study phase, which aims to verify our estimates and build a replicable hoarding intervention and training program for Boston Housing Authority staff.

Name: Rajan, Aditya
Practicum Site: Boston Children's Hospital
Location: Boston, MA United States
Title: Intern - Healthmap

Introduction: The ubiquitous use of smartphones provides the ability to crowd-source weather-monitoring at an unprecedented spatial and temporal resolution. The purpose of this practicum was to utilize a large volume of environmental data acquired from weather sensors present in smartphones to ascertain how environmental conditions at local, intra-city levels impact the incidence of selected diseases including respiratory, metabolic and cardiac diseases in the Greater London Area.

Methods: This practicum involved generating a cleansed and appropriately coded dataset of the region of interest from a large global database of environmental sensor data such as ambient temperature, pressure, humidity, magnetic field and geo-location, and merging it with neighborhood level disease prevalence data available from the online indicator portal maintained by the National Health Service. This was followed by preliminary descriptive analysis in R and spatial analysis in ArcGIS based on post codes to ascertain the overlap between environmental variables and neighborhood level disease data. A final analysis will then be performed to assess if any trends emerge in the data that associate environmental predictors to disease incidence.

Results/Projected Results: Preliminary results indicate that ambient temperature, humidity and illuminance have significant variations not just temporally as expected but also spatially. While it remains to be seen whether these variations have an impact on rates of disease in different neighborhoods, we anticipate that the final results will illustrate the utility of harnessing crowd-sourced data to find urban disease incidence patterns that are otherwise missed.

Name: Reese, Erin
Practicum Site: Boston University Sargent Choice Nutrition Center
Location: Boston, MA United States
Title: Dietary intervention assistant

Introduction: Under the direction of a Registered Dietitian, I assisted in the development of a nutrition intervention for teenage users of Boston's Blackstone Community Center. Blackstone received funding to build a fitness center on site but had not established wellness programming for members. Furthermore, stimulating interest in healthy eating behaviors among teens can increase the likelihood that their future eating patterns are more consistent with public health recommendations. Therefore, we believed the teenage population at the center would be the ideal group with whom to share positive nutrition messages.

Methods: We conducted a formal, epidemiology-focused literature review to determine effective programming methods so we could apply evidence-based practices to the Blackstone intervention. We also interviewed six key informants (staff members at Blackstone; administrative officials) to determine how to effectively communicate important nutrition messages to teen users of the center. Ultimately, we adapted the curriculum and class structure of Cooking Matters, a national program that promotes healthy eating and cooking skills through community-based courses, to create a one-hour class for fifteen teenagers who attend the center's after-school program.

Results/Outcomes: Teens who attended the cooking class learned basic but valuable food preparation skills. Each week, participants made and sampled a healthful recipe, such as an apple and yogurt salad. They were given ingredients to make the recipe at home so they could share what they learned with their families. Teenagers provided verbal feedback that they gained new skills and tasted new foods through participation. The cooking class will continue this summer.

Name: Samuel, Michelle
Practicum Site: Beth Israel Deaconess Medical Center
Location: Boston, MA United States
Title: Research assistant for Health Care Goals and Quality ICD Study

Introduction: More than 50,000 implantable cardioverter-defibrillators (ICDs) are implanted annually in patients aged > 65, at an estimated cost exceeding \$2 billion. Demographic trends and the growing burden of heart disease will make millions more older patients eligible for these devices in the coming years. Older patients face important uncertainties regarding their clinical course and health care needs after ICD implantation, and must weigh these factors against the risk of sudden death without the device. While limited studies have described shocks and deactivation among patients dying with ICDs, their hospice utilization patterns and broader end-of-life experiences have not been well-characterized. The goal of this study is to address knowledge gaps related to the clinical course, health care needs, and end-of-life experiences of older ICD patients.

Methods: As a part of this practicum, I helped write the questionnaires/interviews, completed the Internal Review Board documentation, and created an online database. Currently, I am screening and enrolling patients, as well as conducting the interviews, and inputting data. I am responsible for statistical analysis at the end of the study. The clinical course of these patients will be followed including health resource utilization, goals of care, and (for those who die) circumstances of their death and quality metrics around end-of-life care.

Results/Outcomes: This research will establish a pilot prospective study of older ICD patients and collects preliminary data regarding their end-of-life experiences. This work represents key steps towards better informing clinical and policy decisions regarding the use of ICDs among older patients.

Name: Shanmugam, Udaykumar
Practicum Site: Boston Medical Center / Boston University School of Public Health
Location: Boston, MA United States
Title: Intern at Boston Medical Center

Introduction: MRSA, Clostridium difficile are primary causes of health care associated infections. They are also associated with higher mortality and morbidity rate. Health care associated infections are responsible for complication of estimated 1 in every 20 patients. We observed the hand hygiene and the protocol to be followed under different precautions such as standard, contact, droplet, contact plus (clostridium infections) and air borne infections.

Methods: We had collected around 435 observations of health professionals which included MDS, RNs, physiotherapists, respiratory technicians, housekeeping etc. we made 4 blocks of 3 rooms each and randomized the blocks using computer generated numbers. Each block was allotted 15 minutes of observation. An entry and exit were seen as different observations.

Results/Outcomes: Data analysis: using SAS 9.4 the data was analyzed and the results showed that % of MDs were 59.00% of MDs wash their hands while coming out of standard precautions, 79.55% of RNs wash their hands while coming out under standard precautions and 76.92% of RNs wash hands while coming out under contact precautions, 55.10% of MDs wash their hands while coming out under contact precautions.

Interventions: Based on the data, intervention is being planned to increase the compliance of health professionals. The intervention will be followed by data collection which will be analyzed to find out the effectiveness of the proposed intervention in this ongoing project.

Name: Spite, Sasha
Practicum Site: Boston University School of Public Health-Department of Community Health Sciences
Location: Boston, MA United States
Title: Research Assistant

Introduction: The purpose of my practicum is to work with Professor Emily Rothman on her XXX study. This study is designed to evaluate the relationship, if any with teen dating violence and pornography.

Methods: My role is to administer the XXX questionnaire to teenagers that meet our eligibility criteria (16 years or 17 years old who have watched pornography willingly 2 times or more in the past year). The enrollment goal for this project is 80 participants for room to enroll extra participants if there are enough resources. These activities were relevant to the program by providing researches with information on frequency and type of pornography watched and rationale for watching pornography. This information will then be analyzed after enrollment ends for trends in amount/type of pornography used and teen dating violence. During my time as a XXX study research assistant I have screened approximately 10 patients and identified and enrolled one participant.

Results/Outcomes: The projected outcome of this project will be to identify a relationship between teen dating violence and pornography. In addition, I am to research child/teen awareness of their parents' use of marijuana and compile this information into a literature review. The goal of this review is to identify any gaps in the literature around this subject and report on potential study designs for this type of research question. This literature review will help inform Professor Rothman's future study to assess whether children/teens are aware of their parents' drug use.

EPIDEMIOLOGY

Name: Sullivan, Jacqueline

Practicum Site: Massachusetts Eye and Ear Infirmary

Location: Boston, MA United States

Title: Outcomes after Proton Irradiation in Patients with Iris Melanomas

Introduction: The MEEI has maintained a uveal melanoma patient registry since the early 1980s. Most uveal melanomas arise in the choroid but a small number involve the iris, the colored part of the eye. Excision of the iris tumor is standard for small tumors but proton beam irradiation (PBI) is used in some cases. Because this modality is relatively uncommon, little is known about outcomes after treatment. The purpose of this project was to describe the characteristics and clinical outcomes of patients with iris melanoma treated with PBI.

Methods: I assembled a cohort of 41 patients diagnosed with iris melanoma or iridociliary melanoma who were treated with PBI and completed a thorough chart review to ascertain baseline and follow-up clinical data. I generated descriptive statistics and calculated cumulative rates of ocular outcomes using Kaplan-Meier statistics. I also evaluated differences in outcomes between patients with iris and iridociliary melanoma.

Results/Outcomes: Subjects with iridociliary melanoma were demographically similar to patients with iris only melanoma. Iridociliary melanoma patients did have significantly larger tumors in terms of clock hours and tumor height (3.90 mm v. 1.92 mm). Common complications for all subjects post-treatment included angle closure glaucoma (31.71%), cataract formation (41.46%), increased intraocular pressure (> 25 mmHg) (48.78%) and worsened visual acuity (> 20/200 Snellen equivalent) (39.02%). This analysis raises important considerations for ophthalmologists treating patients with iris melanoma post PBI. These patients should be closely monitored for post-treatment complications that may require intervention.

Name: Sumner, Justen

Practicum Site: Boston Medical Center

Location: Boston, MA United States

Title: Exploring barriers to HPV vaccine uptake and completion among adolescent girls

Introduction: Roughly 4000 women die from cervical cancer annually. HPV causes nearly all cervical cancer, with genotypes 16 and 18 accounting for approximately 70% of cases. Two approved HPV vaccines prevent up to 98% of HPV 16/18-related cervical dysplasia. However, the overall rate of initiating and completing the HPV vaccine series among U.S. girls are only 54% and 33% respectively.

Methods: Pediatric providers and guardians of vaccine eligible, 11-17 year old girls were recruited from one public hospital and three private practice settings. Semi-structured qualitative interviews were conducted with both providers and parents. All interviews were coded by 3-6 researchers. Codes were generated and revised after each coding session and recurring themes were identified to determine differences in attitudes, perceptions, parent-provider communication, and primary reasons for vaccination refusal in order to determine why girls did and did not receive HPV vaccination.

Results/Outcomes: 124 parents/guardians and 37 providers participated. The most common reason parents reported for not vaccinating their daughters was the lack of a physician recommendation (44%). Remaining parents declined because they lacked information (21%), felt that their daughters were too young (13%), had safety concerns (11%), believed that vaccination was unnecessary due to abstinence (5%), or worried that vaccination could promote unsafe sexual practices (3%). Timing of vaccination proved an important theme related to vaccine delay; providers with lower self-reported vaccination rates delayed vaccine recommendations in girls perceived to be at low risk for sexual activity, however both parents and providers believed that predicting the timing of sexual debut was extremely difficult.

Name: Tayeh, Yara

Practicum Site: Self Esteem Boston Educational Institute

Location: Jamaica Plain, MA United States

Title: The WAGE Project / Self Esteem Institute Intern

Introduction: Self-Esteem Boston Educational Institute (SEB) is a nonprofit organization that provides self-esteem training to disadvantaged populations and their service providers, and the WAGE project is dedicated towards eliminating the gender wage gap in America. I contributed my research and analytic skills to analyze SEB provider training evaluations and researched unemployment as a public health issue.

Methods: After meticulous data entry, I led the analysis of 967 provider training evaluations using SAS to perform basic descriptive statistics and hypothesis testing of data stratified by sector. I also conducted several in-depth qualitative case studies with providers from each sector in order to determine the future needs of providers. For WAGE, I performed an extensive literature review on the topic of unemployment as a public health issue and contributed to the development of a public health and policy persuasion article for publication.

Results/Projected Outcomes: The results of the analysis highlight the importance and overwhelming client approval of the SEB training programs, and identify how to better serve future clients by integrating more clinical, professional, and culturally-sensitive training material. The analysis also singled out clients in the substance abuse sector as most satisfied and/or impacted by the Self Esteem Principles and Practices unit. The qualitative case studies serve to identify the applicability of SEB programs in the public health sector post-program attendance. Finally, the publication of the WAGE piece makes the case for unemployment as a public health issue and advocates for additional NIH funding for research on unemployment and health.

Name: Tsai, Timothy
Practicum Site: Boston University School of Public Health
Location: Boston, MA United States
Title: A Quantitative Bias Analysis of Nevirapine vs. Efavirenz in a South African Cohort

Introduction: Systematic errors in epidemiologic studies are often of greater concern than random errors, particularly in large studies. Systematic errors and the resulting biases are often acknowledged, but rarely quantified. Bias analysis provides a formal process by which uncontrolled biases such as residual confounding or misclassification can be accounted for using external data. This project uses bias analysis to quantify biases which may have affected the results of a study on the effect of two non-Nucleoside Reverse Transcriptase Inhibitors (nNRTIs) on virological failure in a cohort of HIV-infected patients in South Africa. Using freely available software and data, it is possible to reduce overconfidence in results while proposing a set of bias parameters which can form the basis for a reasoned discussion.

Methods: We conducted an extensive literature review of journal articles in order to collect data on which baseline factors were associated with nevirapine or efavirenz in studies with similar settings and populations. We used the data from this review to establish a range of values which serve as the input for bias parameters in our analysis. A Directed Acyclic Graph (DAG) was constructed to illustrate assumptions about the causal relationships between our exposure, outcome, and covariates and to show how our analysis would account for potential biases in our study.

Results/Outcomes: A substantial amount of data from journal articles was collected and organized for use in the bias analysis. The DAG will provide a visual reference for adjusting for confounding and evaluating potential biases in our analysis.

Name: Vercammen, Laura
Practicum Site: Boston Medical Center
Location: Boston, MA United States
Title: Boston ARCH Cohort Research Assistant

Introduction: The URBAN ARCH Consortium (Uganda Russia Boston Alcohol Network for Alcohol Research Collaboration on HIV/AIDS) is a large multi-site initiative broadly investigating how alcohol use affects people infected with HIV/AIDS. The primary aim of the Boston ARCH Cohort, a longitudinal study recruiting from the Boston Medical Center Center for Infectious Diseases, is to investigate the role of alcohol on bone health, as well as on various measures of physical and mental health evaluated by a battery of verbally administered validated instruments. The purpose of this practicum was to directly assist with subject recruitment, screening, assessment, and data collection, as well as subject tracking procedures and various administrative and quality control responsibilities.

Methods: I worked with the research team and the Project Manager 1) to implement innovative recruitment strategies in a vulnerable population impacted by homelessness, employment and housing instability, and transient methods of communication; 2) to collect data from eligible subjects during a baseline interview and ensure its quality, consistency, and validity; and 3) to compile a literature review of evidence relating to alcohol use patterns in similar populations, for purposes of enabling recruitment strategies for optimum future analyses.

Results/Projected Outcomes: The data collected during screening and assessment will be compiled as the study progresses for analysis and interpretation. The conclusions reached by the literature review may be used to guide future recruitment and analytic decisions.

Name: Ziemek, Jessica
Practicum Site: Boston University School of Medicine
Location: Boston, MA United States
Title: Patient Reported Outcome Analyst

Introduction: Scleroderma (systemic sclerosis) is a rare autoimmune disease that causes fibrosis of various organs. There are many disease complications and minimally effective treatment. One of the predominate disease manifestations is fibrosis of the skin. Currently, there are no patient reported outcome instruments for skin disease that have been developed or validated for use in Scleroderma. The goal of this project is to analyze skin questionnaires and determine their effectiveness in measuring scleroderma skin disease. Scleroderma has two main subtypes of disease Limited and Diffuse; skin disease is more severe in diffuse patients. The gold standard for measuring skin disease is the Modified Rodnan Skin Score (MRSS) which is a measure of skin tightening done by the physician.

Methods: Data came from a Longitudinal Study that follows patient disease progression over 5 years. Data collection used in analysis began in 2006 and continued until January 2014. Of the questionnaires collected, I focused on the three questionnaires that are intended to capture patient reported skin disease. They are: SHAQ (Scleroderma Health Assessment Questionnaire), Skindex-29, and a physician developed Skin Symptom Assessment. Analysis was restricted to the diffuse scleroderma disease population.

Results/Outcomes: The correlation between SHAQ and MRSS was found to be 0.34 (p-value=0.005, N=68). None of the three domains of Skindex-29 (emotions, functioning, and symptoms) showed a significant correlation with MRSS (N=27). Currently analysis for the Skin Symptom Assessment instrument is still in progress. These results represent a need for more research into patient reported outcomes in scleroderma.

HEALTH LAW, BIOETHICS & HUMAN RIGHTS

Name: Ennis, Erin

Practicum Site: Health Connector Authority - Mass Health Insurance Exchange

Location: Boston, MA United States

Title: Customer Service and Operations Intern

Introduction: I interned for the Massachusetts Health Connector for three months in the fall of 2013. Specifically, I assisted in the Affordable Care Act go-live effort as part of the Customer Service and Operations team. The Customer Service and Operation team focuses on customer experience, enrollment and reporting. As an intern I helped develop systems to track weekly enrollment and monitor the transition of members from the then existing Commonwealth programs to the ACA implemented programs.

Methods: I developed a tracking mechanism that captured key enrollment metrics. These metrics included number of website visits, number of applications started and general call center activity. I assisted with these weekly reports. I also was part of the customer experience team and helped test web experience as well as call center flow prior to and after Go-Live.

Outcomes/Results: Although there were difficulties, many members were able to enroll for health insurance during the enrollment period beginning October 2013. As part of the team overseeing customer experience, I worked with others to ensure that small improvements to the process were made.

Name: Kusuran, Medina

Practicum Site: Boston Medical Center

Location: Boston, MA United States

Title: BMC Forensic Medical Evaluation Group

Introduction: The Boston Medical Center Forensic Medical Evaluation Group serves asylum-seekers and others alleging torture or ill-treatment. In a medical-legal approach (in collaboration with immigration attorneys), the FMEG during a four-hour weekly session provides comprehensive evaluation and documentation to asylum seekers or others alleging torture or ill-treatment, consistent with the methods outlined in the Istanbul Protocol on Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment. The mission of the FMEG is to: increase accountability to perpetrators through documentation; and to further prevent future ill-treatment, therefore improving the public health.

Methods: My responsibilities include: conducting research for a scholarly article on role of nurses in torture and ill-treatment; assisting to develop grant proposals; coordinating with patients, their lawyers, clinic staff, and doctors performing forensic evaluations; participating in case presentations and collaborative forensic assessments; participating in an immigration/asylum court hearing; assisting in the development of the FMEG website; and conducting a supervised forensic medical evaluation and documentation consistent with the Istanbul Protocol on Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment.

Results/Outcomes: At the conclusion of this practicum, I have: gained experience in forensic medical evaluation and documentation, prepared a scholarly article to submit for publication, conducted a supervised independent forensic evaluation and affidavit, updated the FMEG website, grant proposal development, and developed recommendations on how nurses can better engage in the care of asylum-seeking and refugee health populations.

Name: Melillo, Tara

Practicum Site: Boston University School of Public Health

Location: Boston, MA United States

Title: Intern for Self Esteem Boston, The WAGE Project & BUSPH Health Policy and Management Department

Introduction: As a member of a group of three interns working for a collaborative initiative between Self Esteem of Boston, The WAGE Project and Boston University, I assisted in the study, research, and composition of articles on unemployment and its effects on public health. Self Esteem Boston provides self-esteem training for low-income, disadvantaged populations and their service providers in Boston. The WAGE Project provides activist education that equips women with resources, information, tools, and strategies to get paid fairly.

Methods: The interns collaboratively worked together to conduct an extensive literature review to determine the overarching impacts of unemployment on health. This literature review is now being used to develop an opinion piece focusing on attaining funding for research on unemployment. Additionally, information was collected from the trainings conducted by the two non-profits to assess the effectiveness of the programs.

Results/Projected Outcomes: It is important to foster public awareness and funding for unemployment as a public health issue. Upon completion of this practicum, research will have been completed on the success of the Self-Esteem Boston/WAGE Project trainings which will be used in collaboration with current literature to complete the opinion piece. This piece is currently working towards publication with the goal of highlighting the current state of unemployment in Massachusetts, unemployment's health effects, and recommendations for increased funding to better understand the interaction.

HEALTH LAW, BIOETHICS & HUMAN RIGHTS

Name: Perry, Kaitlyn

Practicum Site: Boston University Center for the Study of Traumatic Encephalopathy

Location: Boston, MA United States

Title: Graduate Research Assistant

Introduction: The Boston University Center for the Study of Traumatic Encephalopathy (BUCSTE) studies the effects of repetitive head injury primarily among athletes. BUCSTE has developed a brain bank and brain donation registry for former and current athletes to promote further clinical research on Chronic Traumatic Encephalopathy (CTE). CTE is a neurodegenerative disease most commonly found in professional athletes that may only be diagnosed post mortem. BUCSTE aims to address CTE on all levels possible in a clinical research setting addressing molecular and environmental factors, and from a policy and legislative level to address education, prevention and treatment.

Methods: I reviewed the statutes in all states and Washington D.C. regarding head injury in youth sports I developed a priori categories to determine the content of the statutes, as well as determine any differences. This data was used to create tables to visually display the differences. In addition to summarizing the statutes into categories, I compared statutes to determine three things: what was missing or inconsistent between each statute, how each statute was implemented and enforced, and how the statutes could improve. Comparing the inconsistencies allowed for the determination of essential components of head injury legislation.

Results/Outcomes: After collecting the data, I identified three main improvements that could be implemented into each existing statute to reduce negative effects of head injury in youth sports. These improvements include developing or adopting a uniform and comprehensive education program state wide, creating effective enforcement mechanisms for existing legislation, and implementing measures to reduce overall head injury incidence, like limiting contact in practices.

HEALTH POLICY & MANAGEMENT

Name: Andazola, Matthew
Practicum Site: Boston Medical Center
Location: Boston, MA United States
Title: Quality Improvement Project Manager

Introduction: As part of Sickle Cell Champions, I spent a year assisting a team to increase identification and counseling of BMC pediatric primary care patients who have Sickle Cell Trait (SCT). The goal of this project was to create a new standard of care for SCT – the Sickle Cell Disease carrier status. This required an electronic prompt for counseling during routine care visits, and use of this prompt required correctly coding patients' problem lists.

Methods: 1) For three months, I examined medical records to find patients with SCT who were coded incorrectly, as well as patients without SCT but coded as though they did. This resulted in more than 250 patients who needed problem list changes. 2) Ahead of the prompt's implementation on Oct. 2, and signed off by a lead physician, I made these changes. 3) I assisted in the creation of a new process to enter newborn screening results into patient charts, which will do away with the need to re-enter SCT as a separate status. 4) I have since monitored, using electronic medical records, physician response to this prompt for counseling.

Results/Outcomes: The goal of this project was for physicians to respond "Yes" to the prompt if they provided counseling, producing marked improvement over a baseline 10% documented counseling. Ultimately the goal is to see, by April 30, 90% of providers responding to the prompt and 70% responding "Yes."

Name: Anderson, Jesse
Practicum Site: Alkermes
Location: Waltham, MA United States
Title: New Product Planning Intern

Introduction: Access to medications is an important issue in public health. It affects everyone who requires medications daily to cope with chronic diseases. As part of the New Product Planning team at Alkermes, we constantly analyze market trends to maximize patient access and support services to the patient population we target. We looked at many stakeholders in the healthcare system, including payers, healthcare providers, and patients, to better inform us on issues of access. The goal of this project was to examine and understand the factors affecting the awareness and utilization of support services for this product.

Methods: I worked directly with a partner organization, which fielded the surveys to our target patient population. My responsibilities on this project included: (1) developed the screener and questionnaire to be administered to patients with this disease; (2) managed the project timeline to ensure timeliness; and (3) analyzed the data to present to internal stakeholders.

Results/ Outcomes: This data helped the team better understand what support services are valuable to the patient. It also informed stakeholders' decision-making as to what support services were most utilized and worthwhile to offer our patients. Using this information, stakeholders chose and designed these services to fit patient needs.

Name: Belani, Khushboo
Practicum Site: Massachusetts General Hospital Revere HealthCare Center, Revere CARES
Location: Revere, MA United States
Title: Evaluation and Assessment Intern

Introduction: The Massachusetts General Hospital Center for Community Health Improvement (MGH-CCHI) aims to deliver the very best healthcare in a safe, compassionate environment and to improve the health and well-being of the diverse communities they serve. In partnership with their internal clinical team and key community stakeholders, MGH CCHI works to reduce the rates of the most prevalent and preventable health conditions. As an intern, I worked with the team on a state funded grant to improve access to Narcan (Naloxone) in the municipalities of Revere, Chelsea, Winthrop and Saugus.

Methods: I contributed towards the assessment, strategic planning and the pilot implementation phase of the Massachusetts Opioid Abuse Prevention Collaborative grant. In addition, I assisted in developing tools to track milestones and deadlines for the grant. As part of the assessment process, I participated in interviewing key stakeholders including first responders and emergency units to understand and map existing processes. Further, analysis included studying regional, state and national Narcan distribution trends. Along with the clinical-community team, I participated in the initial planning of an electronic referral process through the Clinical Referral Management System to community Substance Use Disorder treatment programs.

Results/Outcomes: Since the project was guided by the Massachusetts Department of Public Health, I developed a greater understanding of the state's policy implementation process within the clinical-community area. As part of the data analysis, various inefficiencies in the data collection methods were identified and addressed. Deliverables included reports and presentations of the data findings, posters, surveys and stratified spreadsheets.

HEALTH POLICY & MANAGEMENT

Name: Burke-Mannone, Jacklynn
Practicum Site: Repligen
Location: Waltham, MA United States
Title: Marketing Intern

Introduction: Repligen Corporation is a life sciences company dedicated to development, production and commercialization of high-value consumable products used in the process of manufacturing biological drugs, such as monoclonal antibodies, recombinant proteins or vaccines. Working with the market research team, my practicum was focused on helping Repligen achieve their marketing and sales objectives for 2014, as well as understand the stem cell media development area

Methods: To help Repligen realize their sales objectives, I completed sales territory maps of the U.S. and Europe in Excel. This was done by filtering through a database of biotechnology companies and determining if they could benefit from the products in Repligen's portfolio such as protein A, chromatography columns, or growth factors. Once this exercise was completed, I uploaded all data into Salesforce.com so all employees could access the data in real time. After the sales territory map was completed, I identified key opinion leaders (KOLs) to increase business development tactics for cell culture growth factors. This was done by searching peer-reviewed publications, researching prominent stem cell institutions, and running key word searches.

Results/Outcomes: By completing the sales territory maps, I was able to help Repligen identify hundreds of companies that could benefit from their products. These maps further helped Repligen to identify trends in biotechnology company locations, which therefore prompted them to adjust their sales territory regions for their sales representatives. In addition, the KOLs that I identified gave Repligen a focused list of thought leaders that could provide insight on the emerging stem cell market.

Name: Chen, Yigu
Practicum Site: Boston Children's Hospital
Location: Boston, MA United States
Title: Operations Management Intern

Introduction: The Integrated Clinical Information Sharing System (ICISS) is a web-based patient management and monitoring system designed to track patients' disease symptoms and response to therapy over time. This quality improvement (QI) initiative will implement ICISS as the standard of care for all patients who receive care for ADHD, asthma, autism, depression, and epilepsy within the following ambulatory specialties: Adolescent Medicine, Allergy-Immunology, CHPCC, Developmental Medicine, Neurology, Psychiatry, and Pulmonary. This practicum primarily focuses on optimizing the processes of implementing and operating ICISS at 7 different clinics mentioned above.

Methods: In this project, I have interviewed and brainstormed with research assistants, clinicians, administrative staff, and system development team to customize ICISS patient enrollment workflow for each clinic. Based on the flow charts, we helped all the stakeholders to better understand their responsibilities and the interactions in the process. During pilot stage, we adopted PDSA improvement model to test operational and clinical workflow changes needed to facilitate ICISS adoption within the ambulatory care setting. I have also been involved in developing training materials for research assistants to streamline the training processes.

Results/Outcomes: We developed customized process maps for 7 ambulatory specialties and 1 satellite clinic, most of the clinics have launched their implementation of ICISS and started enrolling target patients according to the designed workflow.

Name: Chung, Michelle
Practicum Site: Children's Hospital
Location: Boston, MA United States
Title: QI Student Intern at Boston Children's Hospital Otolaryngology Department

Introduction: The Otolaryngology (ORL) department at Boston Children's Hospital (BCH) seeks to gain insight to the overall patient experience. In this project, I will be identifying patients who are likely to undergo Tonsillectomy and Adenoidectomy's (T&A) because it is one of the most common procedures undergone at BCH. Understanding the patient's perspective is important because it is often difficult for providers to realize what patient's go through in the clinic. By understanding the day-to-day operations from the patient's point of view, the ORL department can continue to improve the continuity and quality of care for the patients.

Methods: Certain symptoms are indicative of T&A procedures. Once these patients are identified, they are followed from the time they enter the clinic to the time they are transferred to a post-op room. Interactions with various staff members, information received, and time for each task is observed and analyzed.

Results/Outcomes: A value stream map was created to identify waste and improve the process of diagnosis and treatment. Qualitative analysis which covered, but was not limited to, the amount of information received by patients and the interactions amongst various providers, provided the ORL department at BCH valuable information to address some inefficiencies and lead them in a direction to improve quality of care for the patients.

HEALTH POLICY & MANAGEMENT

Name: Elman, Daniel

Practicum Site: Boston Children's Hospital

Location: Boston, MA United States

Title: Research Assistant for Study on Predictive Factors of Orbital Fractures

Introduction: As part of a research study in the emergency department at Boston Children's Hospital, I assisted on a project to improve the quality and efficiency of care delivery in the emergency room through the reduction of unnecessary imaging studies. I have been worked with physicians conducting a research study on the predictive value of clinical indicators for orbital fractures. If successful we will be able to develop a prediction rule, based on clinical indicators, for when to obtain a CT Scan.

Methods: A cohort was generated from patients seen in the emergency room at Boston Children's Hospital for appropriate complaints, including head trauma, facial trauma, and motor vehicle accidents amongst others. I then reviewed the charts of the cohort for the presence of predetermined clinical factors that could be predictive for the fracture of an orbit. Upon completion of chart review data will be organized, and statistical analysis will be performed using Statistical Program for the Social Sciences Software.

Results/Outcomes: The ultimate goal of the study is to determine, based on statistical analysis of the data, if a prediction rule to obtain a CT scan to assess orbital fractures can be generated. This would provide clinicians with a tool to potentially reduce the number of unnecessary CT scan ordered for evaluation of an orbital fracture.

Name: Engelberg, Benjamin

Practicum Site: Massachusetts State House

Location: Boston, MA United States

Title: Research Analyst Intern at the Joint Committee on Health Care Financing

Introduction: The Joint Committee on Health Care Financing is the legislative committee responsible for bills on health care finance in the Commonwealth. The Committee also regularly receives bills reported favorably out of the Committee on Public Health. Committee staff researches the bills before the committee and makes recommendations to inform the Committee's vote. Staff also provides the Committee with ideas for amendments.

Methods: I have assisted the Committee's research team by writing short briefs and conducting research on a variety of bills. I have conducted literature reviews, examined written testimony before the Committee, and spoken with various stakeholders to inform my writing.

Results/Outcomes: The research team has to thoroughly analyze all the proposed legislation before the committee. I will provide the research analysts briefs that offer an analysis of a bill creating a cap on out of pocket costs from pharmaceuticals, a bill limiting charges for the underinsured, and a bill requiring private payors to reimburse telehealth at the same rate as in person visits. These briefs will include an analysis based on a literature review, written testimony, and description of similar legislation in other states.

Name: Finlay, Caroline

Practicum Site: Boston Medical Center

Location: Boston, MA United States

Title: Research Assistant - "Parental attitudes toward initiating and completing HPV vaccination"

Introduction: The Boston Medical Center Department of Obstetrics and Gynecology is conducting a study on parental attitudes toward initiating and completing the HPV vaccination. The goal of the study was to understand why parents do not initiate or complete the HPV vaccine series for their daughters, and to see how these reasons differ in parents of different races, ethnicities, countries of origin, socioeconomic status, and public safety net vs. private practice clinical settings.

Methods: As a research assistant, I approached parents accompanying 11-17 year old daughters to medical visits in one public hospital and three private practice settings. If the parents consented, I performed a qualitative interview with the parents to determine the primary reasons why their daughters had not started or completed the vaccine series. The interviews were then coded using qualitative methods to infer themes among the responses. As a research team, we compared answers across race/ethnicity, socioeconomic status, and practice settings, to determine differences in attitudes, perceptions, parent-provider communication, and primary reasons for not completing vaccination.

Results/Outcomes: The preliminary results found were that the most common reported reason for not vaccinating their daughters was the lack of a physician recommendation. Other reasons included lack of information, feeling that daughters were too young, safety concerns, believing that vaccination was unnecessary due to abstinence, or worry that vaccination could promote unsafe sexual practices. The results of this study will be presented at the Society for Adolescent Health and Medicine 2014 Annual Meeting.

HEALTH POLICY & MANAGEMENT

Name: Goldenheim, Anna

Practicum Site: South End Community Health Center

Location: Boston, MA United States

Title: Practicum in Quality Management in a Community Health Center Setting

Introduction: In the rapidly evolving age of electronic medical records, an abundance of valuable patient data is collected and stored each day. Nevertheless, many healthcare organizations, including the South End Community Health Center (SEHC), are in only the beginning stages of using this information to improve quality of patient care. During this internship, I assisted the SEHC Director of Quality with initiatives to organize and present data in order to improve service delivery and outcomes at the health center.

Methods: In collaboration with the Director of Quality, IT, physicians, and other care providers, I assisted with development of DRVS, a web-based data-reporting portal for SEHC patient process measures, including rates of pediatric vaccination, tobacco cessation counseling, and cervical cancer screening. Additionally, I worked on patient satisfaction, provider productivity, Uniform Data System reporting, and other quality improvement initiatives at the health center.

Results/Outcomes: While still in its early stages, DRVS is designed to give clear and accessible real-time reports of SEHC's performance in a variety of pediatric, adult, and prenatal quality metrics. Ultimately, this system will be a valuable tool for recognizing what the health center is doing well and on what processes it can improve.

Name: Grueter, Kathleen

Practicum Site: Beth Israel Deaconess Medical Center

Location: Boston, MA United States

Title: Quality Improvement Assistant for BIDMC Emergency Department Cellulitis Pathway

Introduction: From 1993 to 2006, Emergency Department (ED) visits for cellulitis tripled. Although many patients are admitted or placed in observation, some patients can be treated safely in the outpatient setting; therefore, there is potential for cost reduction. At BIDMC's tertiary care medical center ED with 57,000 annual visits, I work with the Principal Investigator (PI) along with Atrius Health, to develop a clinical pathway that will lead to the avoidance of hospitalization or observation of moderate cellulitis patients. The purpose of this study is to assess the resource utilization of cellulitis patients before and after pathway implementation.

Methods: I worked with the PI: 1.) to engage in biweekly meetings with key stakeholders and assist in developing an electronic tool, which detects Atrius patients with suspected cellulitis and informs the physician that the patient may be eligible for the pathway, 2.) to complete prospective and retrospective data abstraction of cellulitis patients presenting to our ED, 3.) to develop a research strategy by completing a three day comparison of all ED patients versus those captured by electronic tool; 4.) to assist the PI in making changes to the electronic tool based on discussions and analysis.

Results/Outcomes: The electronic tool flagged a total of 425 patients and 145 met study inclusion criteria. After pathway implementation, there was evidence of decreased total median hospital length of stay (12 versus 22 hours) and fewer hospitalizations; due to the small sample size, this evidence did not reach statistical significance and warrants further evaluation.

Name: Hamdan, Sami

Practicum Site: Boston University School of Public Health

Location: Boston, MA United States

Title: New England Alliance for Public Health Workforce Development/Program Assistant

Introduction: The New England Alliance for Workforce Development supports local public health workers in Massachusetts, who have very different backgrounds and education levels and work in the communities of varying sizes. Online educational modules provide information on a wide range of important public health issues. This practicum developed a module for the Patient Protection and Affordable Care Act (ACA), which introduced significant changes in medical care and public health. This module was not intended as an exhaustive education on the ACA, but useful information to local public health workers to understand and leverage the provisions in the law.

Method: The module was defined by clear learning objectives and a narrow scope, the local public health effects of the ACA. To develop the module, interviews with key informants in Massachusetts local public health were conducted. Significant research into the legal text of the ACA, regulatory effects, and implications for local public health helped inform the module. It involves limited text and interactive components (like albums, matching exercises, etc.).

Outcomes: The educational module will concisely convey the key elements of the ACA, as it relates to public health. Because health care is changing, information on insurance changes, medical care reform, and traditional public health funding are all essential. This will help local public health workers in Massachusetts understand the rapidly changing face of public health and health care, at a time when public health is increasingly involved with medical care and public health budgets are becoming tighter.

HEALTH POLICY & MANAGEMENT

Name: Liu, Annie
Practicum Site: Hopkinton Health Center
Location: Hopkinton, MA United States
Title: Developing an Adult Day Center in Hopkinton

Introduction: A growing problem with the aging population encountered in United States is the need to deliver low cost, long-term care. Adult day programs provide a safe environment, and allow older adults and individuals with disabilities to remain in their community. According to Massachusetts Adult Day Services Association, adult day programs save the state and federal taxpayers millions of dollars annually. Hopkinton Health Center's goal is to delay or prevent institutionalization by providing complementary care that offers health and social services to its members. The purpose of the practicum was to assist in the development of a new adult day center in Hopkinton, MA.

Methods: My responsibilities included conducting a needs assessment, identifying the initial staff needed, drafting policies and filing for credentialing as a MassHealth provider. I also developed marketing materials including brochures and an article on the Hopkinton e-newsletter. This practicum provided insight into the facets of starting a new center including the need to engage stakeholders, which utilized the skills I gained as a Health Policy and Management concentrator.

Results/Outcomes: The policies were finalized and submitted to MassHealth for processing. MassHealth approved the Hopkinton Health Center, and the center is expected to open by the end of this Spring 2014. It will serve all of Hopkinton and the neighboring communities to provide transitional care and support to older adults and individuals with disabilities.

Name: Liu, Jacqueline
Practicum Site: Boston Health Care for the Homeless Program-Dental Clinic
Location: Boston, MA United States
Title: Quality Improvement Intern at BHCHP

Introduction: The Boston Health Care for the Homeless Program's Dental Clinic provides oral health care to Boston's homeless population. The dental clinic focuses on both integrative and coordinated care with the medical clinic and respite care departments located within Jean Yawkey Place. The staff is currently focusing on process improvements for the front desk and registration procedures, as well as improving their outcome metrics for preventative services provided by re-designing the Electronic Dental Record, and determining the total number of completed treatment plans.

Methods: I made both quantitative and qualitative observations in order to develop process improvement recommendations for the front desk and registration processes. I generated several process flow maps, as well as a cause-and-effect diagram. I also created the first-ever dental clinic patient satisfaction survey that was used to provide feedback from patients for the dental clinic staff and procedures. I calculated utilization rates for front desk procedures, and compiled data for both preventative services provided and treatment plan completion.

Results/Outcomes: I made recommendations to the clinic to increase efficiency, quality and to eliminate wastes for the front desk and registration procedures. The clinic also rolled out the patient satisfaction survey starting at the end of March 2014. In addition, the redefinition of preventative care that I helped developed will be implemented into the clinic's EDR in order to obtain more information regarding preventative care services provided for the patients. The next steps will include developing ideas on how to further increase the total number of completed treatment plans for the patients.

Name: Matousek, Sarah
Practicum Site: Elder Services of the Merrimack Valley
Location: Lawrence, MA United States
Title: Community Care Transitions Program Intern

Introduction: The Community-based Care Transitions Program (CCTP) was created by the Affordable Care Act to improve the transition from the hospital to other care sites and reduce readmissions for Medicare recipients. The program includes a team that identifies program candidates in the hospital, visits patients at home after discharge, and makes calls to check in. These interactions aim to identify problems that may result in a readmission, such as medication discrepancies or lack of social services. Since the program began, a significant reduction in hospital readmission rates has been shown for this population. The purpose of the practicum was to analyze data from the CCTP program and identify disease diagnoses associated with frequent admissions.

Methods: The CCTP database included all hospital admissions for clients in the program from February 2012 – February 2013. A separate database included client diagnostic information. Because the database included over 7,000 admissions for 5,000 patients, pivot charts were used to assess several parameters, such as number of admissions per client and hospital-specific statistics. Based on this information, 147 clients with four or more admissions in the past year were further analyzed for disease diagnosis.

Results/Outcomes: The results of the study indicated that 147 clients were responsible for over 800 hospital admissions. Nearly 70% of these patients had a diagnosis of hypertension and 50% had heart failure. The majority had three or more comorbid conditions. Seven diagnoses were common in this population, indicating that clients with these illnesses may require more careful follow-up after discharge.

HEALTH POLICY & MANAGEMENT

Name: Pelletier, Nicole
Practicum Site: National Patient Safety Foundation
Location: Boston, MA United States
Title: Intern

Introduction: The National Patient Safety Foundation is a non-profit organization that works “to improve the safety of care provided to patients. As a central voice for patient safety, NPSF is committed to a collaborative approach in all that it does and therefore offers a portfolio of programs targeted to diverse stakeholders across the health care industry” (npsf.org). During my practicum I assisted with the planning and implementation of the NPSF annual Congress, Patient Safety Awareness Week, an organization-wide outreach campaign, as well as various other tasks and research initiatives as they arose.

Methods: I worked closely with the Senior Director of Events Management, Senior Director of Programs and external organizations to develop education materials for Patient Safety Awareness Week, including a comprehensive list of resources for patients and providers. I also assumed responsibility for managing the NPSF online store and all Patient Safety Awareness Week promotional materials and assisted customers with issues as necessary. In preparation for the NPSF congress in Orlando, FL in May I worked with the programs team to coordinate programs marketing materials for the event. I was also in charge of coordinating all printing and shipping of materials for the event.

Results/Outcomes: Each of these projects contributed to the success and continuation of NPSF’s strategic plan to engage the health care community to advance patient safety.

Name: Perry, Erica
Practicum Site: South End Community Health Center
Location: Boston, MA United States
Title: Practicum in Quality Management in a Community Health Center Setting

Introduction: Quality in health care is increasingly important. I worked with the quality director of South End Community Health Center on projects that were aimed at increasing the quality of data collection. My primary focus was on the documentation of provider productivity. Relevant questions included: how many patients did each provider see during a given time period? How accurately is the health center measuring this number? How can we better capture this information? How do the numbers impact the budgeting for the next fiscal year?

Methods: My primary activities involved working with IT to obtain reports on the number of patients seen by each provider for the current year. I also reformatted the reports in Excel to perform needed calculations and to communicate the data provided in the reports. I attended clinical technology meetings to see how different roles within the health center contribute to this topic and brainstormed a process map for how provider data and appointments are currently documented in the health center. I compared the numbers found in the internal reports with the numbers found on the financial reports to test the accuracy of the internal report.

Results/Outcomes: We found that based on the internal reports produced, providers are seeing fewer patients than expected based on budgetary needs. It is unclear if this result is based on weaknesses of the reporting system or if the expectation of patient volume for each employee needs to be adjusted. Next steps include optimizing the collection of productivity data.

Name: Pierre, Patricia
Practicum Site: Abington, MA Board of Health
Location: Abington, MA United States
Title: Town of Abington Health Department Intern

Introduction: Emergency preparedness is being prepared when a disaster strikes. During an emergency help may not be immediately available which is why it is important to be prepared to shelter in place until help comes or the disaster has passed. Not only does it reduce stress and anxiety giving residents additional time needed to assess the situation and take the appropriate action, it will also help residents keep their loved ones safe. The purpose of this practicum was to produce an emergency preparedness brochure for the town of Abington, giving the residents information on essential items needed in case of an emergency. I was also assigned the task of getting the department signed up for the Government Emergency Telecommunications System (GETS) program which is a National Communications Systems program that prioritizes calls over wireline networks during an emergency.

Methods: I met with the emergency preparedness representative for the town for an overview of the area of work. Next, I did research to gain an understanding of what some common tools were for emergency preparedness and what the town already had in place.

Results/Outcomes: The final product was an emergency preparedness brochure displayed on the town bulletin board and to be distributed by the town clerk’s office, health department and public library. We were also able to complete the sign up process for the GETS card which will allow board of health to have priority over regular calls during an emergency increasing the probability that calls will get through communication networks even when they’re congested.

HEALTH POLICY & MANAGEMENT

Name: Sampath, Bhargavi
Practicum Site: Ibis Reproductive Health
Location: Cambridge, MA
Title: Research Assistant

Introduction: Examinations of women's facility experiences in receiving abortion care have primarily been centered on clinical aspect, with little attention directed at non-clinical quality dimensions. However, women's experiences extend beyond the clinical procedure, to encompass their comfort with the facility environment and clinic staff.

Methods: From December 2011 to June 2012, 27 in-depth interviews were conducted with low-income women who obtained an abortion in Massachusetts. The interviews, focused on women's experiences obtaining and paying for abortion care, were digitally recorded, transcribed verbatim, and coded in Atlas.ti.

Results/Outcomes: In describing their facility experiences, participants' responses focused structural and interpersonal domains. Structural elements included the physical environment of the facility and the processes in place for abortion care. Interpersonal experiences involved participant's interaction with the clinic staff, access to social support, and patient's feelings of safety or privacy at the clinic. A majority of participants reported that the facility was "professional" and "clean," and the processes "straightforward." Overwhelmingly, participants expressed an appreciation for the staff's "friendly" manner, "compassionate" care, and creating a "supportive" and "nonjudgmental" environment. While a majority of participants reported receiving high-quality care and being comfortable at the facility, a few women shared concerns regarding (1) the extent of social and emotional support they received, (2) the long wait-times at the clinic, and (3) the presence of protestors outside the facility. To improve women's experiences in procuring abortion services and advance the quality of abortion care, researchers and clinics must direct their attention toward non-clinical aspects of facility experiences.

Name: Sharma, Ankur
Practicum Site: Quintiles Consulting
Location: Cambridge, MA United States
Title: Market Intelligence Intern

Introduction: Quintile consulting is a leading pharmaceutical and biotech consulting firm. I interned with the market intelligence group of the consulting arm, the Market Intelligence group works closely with life sciences companies at any stage of their product's lifecycle and helps clients understand the market place, provides opportunity assessment, identify and model new product acceptance, strategic positioning, behaviorally based market segments and product forecasting.

Methods: One of Quintiles client is preempting the need for a risk management program for one of its products prior to its launch. The client is seeking assistance in designing an optimal service model to address logistical challenges and the needs of key stakeholder groups in a restricted drug distribution/controlled drug distribution model. As I an intern I worked closely with the project team to provide comprehensive secondary background research on risk management programs across key markets including the US, EU and Canada. I also analyzed supply-chain logistics of restricted drug distribution system and stakeholder needs to develop a risk management program in line with regulatory standards (FDA and EMA).

Results/Projected Results: I developed comprehensive synthesis of regulatory requirements for risk management programs and provided background research synthesis including competitive landscape assessment for proposal development. Secondary research bolstered by primary research across prospective markets was used to develop a risk management program for the client.

Name: Sharma, Ankur
Practicum Site: Partners HealthCare Business Planning and Development
Location: Charlestown, MA United States
Title: Inter- Business Planning and Development

Introduction: Partners HealthCare, the largest healthcare provider in Massachusetts is a non-profit organization that owns several hospitals in Massachusetts, primarily in the Boston area. I worked with the business-planning group, which acts as an internal consulting group, providing key analyses and contributing to the development of recommendations for strategy projects across the System. These strategic planning projects are at the request of a wide range of constituents, including operating unit heads, corporate-level business leaders, hospital CFOs, VPs, and physician chiefs.

Methods: I worked with the business planning team on multiple projects including-1) System wide I.C.D-10 implementation, the financial implications of I.C.D-10 and analyzing Partners preparedness for the new coding structure. I conducted literature reviews and interviews with industry experts to benchmark best service line definition methodology with regard to ICD-10 implementation.2) I collaborated with clinicians to conduct needs assessment and provide strategic analysis to sleep program unit of one their hospitals who observed a decline in their sleep program volume. I analyzed patient volume trends, margins per service line, payer trends, competitive landscape, and changing reimbursement schemes.

Results: Formulated and presented cost-savings and sustainability recommendations to Finance team and leadership, including identifying several financial implications and key service lines at risk of revenue loss resulting from ICD-10 implementation. I also identified and presented opportunities for sleep program growth.

HEALTH POLICY & MANAGEMENT

Name: Somai, Mohamed
Practicum Site: Beth Israel Deaconess Medical Center
Location: Brookline, MA United States
Title: Research Intern

Introduction: Informatics for Integrating Biology and the Bedside is an NIH-funded scalable informatics framework that will enable clinical researchers to use existing clinical data for discovery research and, when combined with IRB-approved genomic data, facilitate the design of targeted therapies for individual patients with diseases having genetic origins.

Methods: I am working directly with the clinical informatics division team in integrating i2b2 within clinical, medical and research data. I have examined the architecture and designed the technical processes for running research and documented the specifications necessary to the integration with the public health data, genomics and health records.

Results/Outcomes: This practicum provides me with an extensive experience to the implementation of health information technology for the improvement of the healthcare delivery system. Furthermore, the division has an international informatics program that focuses on different areas such as technology transfer, scientific collaboration and workforce development in the field of healthcare. Many international projects are actually integrated with many countries worldwide. Therefore, I have been able to foster my knowledge in the field of health policy and health management through the extensive integration of evidence-based decision processes that have been successfully integrated in many settings worldwide. It has provided me with the right tools and the right experience to be able to tackle the issue that the healthcare system in Tunisia (my country) faces nowadays. Combining this experience with my academic education at Boston University is ultimately a great pathway to establish a good framework for establishing better healthcare reforms and strategies.

Name: Sun, Wenlu
Practicum Site: KPMG China
Location: Beijing, China
Title: Winter Intern

Introduction: A comprehensive research was conducted to study the performance, success factors and development strategies of Phoenix Healthcare Group, a private healthcare delivery organization in China, under its national level new health care reform. The research aimed to study and use evidence-based data to prove the factors that gave the organization its current success, and point out ways for both Phoenix Healthcare and all other private healthcare organizations in China to achieve further successes. A consulting report was written as the final deliverable.

Methods: Qualitative: key-person interviews with board members, hospital administrators, and other staff. Quantitative: annual report analysis. Strategic tools utilized: SWOT, five-forces, stakeholder analysis, etc.

Results/Outcomes: The four-week long internship at KPMG China provided me an opportunity to learn and apply the many consulting tools into real practice. In order to conduct detailed researches and analysis, I was able to interview many key personnel in the organization, as well as hospital administrators and patients. Throughout the internship, I was able to design and conduct the research and analysis independently, and seek and obtain help when needed. I was able to identify the success factors that contributed to Phoenix healthcare group's current achievements, and provide further development strategies for future improvement opportunities.

Name: Thatte, Hameer
Practicum Site: Tufts Medical Center Primary Care - Framingham
Location: Framingham, MA United States
Title: Generation and Implementation of Foundational Policies and Procedures at a New Primary Care Practice

Introduction: The Division of Internal Medicine and Adult Primary Care at Tufts Medical Center offers comprehensive evaluation, consultation, and medical management for all diseases within internal medicine for adults. Tufts Medical Center Primary Care - Framingham was opened in October 2013 to provide comprehensive primary care services in Framingham, MA. Given the fact that the center has just recently opened, the project is designed to generate foundational policies and implement resultant operational procedures.

Methods: To develop an understanding of practice operations, I managed several projects that analyzed current processes utilized by the practice. This involved meeting with various stakeholders, including the attending physicians, Practice Manager, the Medical Assistant, and Practice Coordinators. These meetings and interviews were conducted to address any potential operational barriers for each process.

Results/Projected Outcomes: Foundational policies created include the following: generation of a comprehensive, streamlined patient check-in process that eliminated redundancies and addressed practice-specific concerns; generation of a network downtime procedure that created a seamless transition to a paper record system in the event of an electronic medical record or internet outage; generation of new physician referral procedures; generation of a new consolidated patient insurance capture process; creation of a new Medical Assistant (MA) checklist to train incoming MAs; creation of a self-inspection/unit standards compliance checklist to ensure that all procedures would be current based on the evolving needs of the practice; and the development of an analytics system that recognizes current procedural terminology and billing trends for the practice to identify inefficiencies or redundancies.

HEALTH POLICY & MANAGEMENT

Name: Wang, Xueting
Practicum Site: Boston Children's Hospital
Location: Boston, MA United States
Title: work-study internship

Introduction: HealthMap is an electronic disease surveillance system. It brings disparate data sources together to achieve a unified and comprehensive view of the current global state of infectious diseases. It offers detailed information to help epidemiologist do the data analysis. Through an automated text processing system, the data is categorized by disease, location, and species, with details about case number and disease category.

Methods: I worked as a data manager, and curated the collected news alerts to train the HealthMap system. I worked with my team to check all the Chinese news related to the infectious disease, especially the H7N9 outbreak ones. In addition, I helped to develop a new Chinese “key word” system to improve the system, which can help the system identify news to the accurate categories and alert levels.

Results/Outcomes: HealthMap's Chinese feeds database is better organized. The improved system can decrease the redundant news collection, which is more efficient. From the collected news alerts, study could be conducted to investigate the cause and risk factor of infectious diseases.

Name: Wang, Xueting
Practicum Site: CDC China and WB Research Project
Location: Cambridge, MA United States
Title: Coordinator of Program - "childhood obesity prevention" in 2014 YOG (Youth Olympic Games) Heritage Project

Introduction: In China, the children's obesity rate is increasing in recent years. Less physical activities and unhealthy diets make this problem worse. The International Olympic Committee, cooperated with Nanjing CDC, conducted the “Childhood Obesity Prevention” program. This is a systematic program under the 2014 YOG (Youth Olympic Games) Heritage Project, which aims to control and decrease the children/adolescent obesity rate in Nanjing. Nanjing CDC, associated with more than local 30 primary/middle schools, will conduct the education class for two years.

Methods: I worked as a program coordinator at Nanjing CDC. During my internship, I helped the whole team in making the physical activity questionnaires, contacting the branch health departments, and training the participating staff. All the preparation for the pilot study was our team's responsibility. I also took charge of making part of the educational materials (including slides and brochures).

Results/Outcomes: At the end of my internship, all the educational materials were finished. In addition, Nanjing CDC had completed the pilot test, and had collected data from around 400 individuals related to height, weight, blood pressure, etc. Further data analysis will be done.

Name: Yardimian, Anush
Practicum Site: Boston Children's Hospital
Location: Boston, MA United States
Title: Quality Improvement Intern

Introduction: The Improve Care Now (ICN) registry aims to improve the quality of care for inflammatory bowel disease (IBD) patients. This practicum focused on evaluating the current health maintenance processes at Boston Children's Hospital, specifically the drug ordering process for Remicade and the flu vaccine rates. Remicade is a drug that is used to help with inflammation of the GI tract in children with IBD and is administered by intravenous infusions.

Methods: Qualitative interviews were conducted with various providers for the Remicade ordering process to understand current methods used by ICN providers. Once data was collected a process flow map and cause and effect diagram were created to map out the current processes and target the problem areas. Data extracted from Powerchart was used to analyze current trends in patients' flu vaccination rates.

Results/Outcomes: Results revealed the variability in the Remicade workflow and recommendations aimed to streamline this process. Recommendations for the Remicade workflow process included setting up an alert on the online order form to alert physicians to look for immunization compliance and creating a checklist for providers and for families that educates them about Remicade. The flu vaccination project outcomes revealed lower than desired flu vaccination rates for the department. Suggested implementation includes a patient education and reminder system via a departmental listserv as well as engaging physicians. Bimonthly updates during flu season comparing providers' patients' vaccine rates are another method way suggested to improve the rate.

HEALTH POLICY & MANAGEMENT

Name: Yen, Sara

Practicum Site: Boston Medical Center

Location: Boston, MA United States

Title: Increasing adherence to postpartum follow-up care visits in women undergoing treatment using methadone or buprenorphine for opioid addiction.

Introduction: Pregnant women undergoing medication-assisted treatment for opioid addiction are at higher risk for obstetric complications and neonate morbidity and mortality. The multidisciplinary Project R.E.S.P.E.C.T. team at Boston Medical Center specializes in the obstetric care of women living with addiction. At baseline 87% of patients had one postpartum appointment scheduled and 71% of those scheduled attended. The objective was that at least 80% of patients will complete 3 visits within 5 weeks of discharge.

Methods: An Ishikawa diagram was created to understand the causes of non-adherence – determined by interviews with key stakeholders (providers and ancillary staff at BMC and outside treatment programs). A Plan, Do, Study, Act (PDSA) approach was taken to address amenable causes of follow-up failure. Interventions planned include amending and standardizing scheduling practices and the development of a brochure and appointment card to be used at discharge.

Results/Projected Outcomes: Results of the Ishikawa indicated permutable causes of poor adherence to be: inconsistent and non-patient centered scheduling practices, and patients' lack of understanding of importance of visits in the postpartum period. Both interventions are in the "Plan" stage and are not yet operational. By the end of the practicum the following interventions will be operational: (1) conferring with patients to determine the best appointment time, (2) scheduling appointments after the birth, but prior to discharge, and (3) use of the brochure and appointment card by the team to educate the patient on the goals and importance of postpartum care for physical health and ongoing addiction recovery.

Name: Yoon, Andrew

Practicum Site: Clinton Health Matters Initiative

Location: New York, NY United States

Title: Clinton Health Matters Initiative Intern

Introduction: The Clinton Health Matters Initiative (CHMI) works to improve the health and well-being of people across the United States and globally by activating individuals, communities, and organizations to make meaningful contributions to the health of others. CHMI works to implement evidence-based, environmental and investment strategies with the goal of reducing preventable health outcomes, reducing healthcare costs, and improving quality of life. CHMI provides a platform for individuals to access local/scalable solutions for healthy change agents, advance community health by decreasing health disparity gaps, focus on underserved communities, and engage the private sector through commitments to action pledges.

Methods: My role as an intern consisted of compiling final research materials in order to complete the Employee Effectiveness and Well-Being Framework in areas of talent management, employee health in the healthcare sector, employer insurance statistics, and obesity rates. The framework was designed to engage organizations to invest in wellness initiatives for their employees. I also helped to find synergies between this employee framework and a newly-built Prescription Drug Abuse framework in order to build out the model further.

Results/Outcomes: The prescription drug abuse framework was in the spotlight for a major conference held in April in which the Clinton Foundation partnered with Facebook and the JED Foundation to start a nationwide conversation on preventative measures of drug abuse on campuses. Also, the Clinton Foundation will be using the employee wellness framework to build strategic partnerships with public and private sector organizations to enhance the health of workers across industries.

INTERNATIONAL HEALTH

Name: Akhtar-Zaidi, Samera

Practicum Site: Aga Khan University

Location: Karachi, Pakistan

Title: Community-Level Health Financing for CLIP (Community-Level Intervention for Pre-eclampsia), Pakistan

Introduction: The Community-Level Intervention for Pre-eclampsia (CLIP) Trial seeks to identify weaknesses and gaps in community level responses to management of preeclampsia (pregnancy related hypertension)-related complications, one of the leading causes of maternal mortality in low and middle-income countries, including Pakistan.

Methods: By identifying gaps in community-level management of pre-eclampsia, CLIP will initiate a series of interventions to reduce pre-eclampsia-related deaths in pregnant women. The CLIP intervention recognizes the common shortcoming of philanthropic development aid where there is failure to teach and empower communities receiving aid, creating a dangerous cycle of aid dependency. Thus, a key factor of the CLIP Trial includes the development of a sustainable community-level financing scheme in the districts of Hyderabad and Matiari for the management and treatment of pre-eclampsia. The project purpose was to analyze current healthcare financing schemes in Pakistan and determine which model provides the most protection against high cost of medical care in rural and resource-strained settings.

Results/Outcomes: Supporting other concurrent research, we conclude that the government of Pakistan is failing to collaborate effectively with provincial systems, international donors, and national health institutions to develop a sustainable and effective method of universal health coverage. This failure requires a strategic shift from government dependency to research and development towards other healthcare financing mechanisms, which can function independently from the government. As such, the review also developed a community-level financing scheme to facilitate access to primary care, drugs, and essential hospital care for pregnant women in Hyderabad and Matiari, which can be applied to other resource-limited settings.

Name: Allain, Christina

Practicum Site: Clinton Health Access Initiative

Location: Lilongwe, Malawi

Title: HIV Service Delivery Project Officer, Maternal and Neonatal Health Unit, Clinton Health Access Initiative, Lilongwe, Malawi

Introduction: I served as a Project Coordinator for Clinton Health Access Initiative (CHAI) Project's "Quality HIV and Reproductive Maternal and Neonatal health services for women and young women in Africa through good clinical governance and community-driven accountability." Funded by STOP AIDS NOW! (SAN!), the Project aimed to increase uptake of quality HIV and reproductive maternal and neonatal health (RMNH) services through improved clinical governance and community-driven accountability. CHAI was tasked with managing the Project, acting as a galvanizing force among the different actors, supporting and capacitating Project participants and functioning as an expert on country-level issues relevant to the Project and advisor to SAN!.

Methods: I worked with CHAI local staff to organize meetings of the SAN! Project Steering Committee and other necessary partners; reviewed, consolidated and managed partner workplans and budgets; documented Project activities and shared updates to the broader team; wrote and consolidated quarterly progress reports to SAN!; and provided overall coordination among SAN!, local stakeholders, facilities, and CHAI.

Results/Outcomes: Quarterly Steering Committee meetings assisted the consolidation of workplans and budgets developed by the Project Officer, where clear delineation of responsibility were defined. Quarterly progress reports on financial and programmatic activities were prepared and submitted to the donor, SAN!. The Project cemented strong leadership and coordination, preparing the follow-on Project Coordinator with the tools to continue to lead the Project towards successful implementation.

Name: Bali, Akanksha

Practicum Site: Swasti Health Resource Center

Location: Bangalore, India

Title: Market sizing and feasibility for sanitation solutions in 2 states in India

Introduction: Swasti is an International Health Resource Centre specializing in social and management aspects of public health. One of their core areas of expertise is sanitation and hygiene and I was part of their sanitation and hygiene project on sanitation solutions in Karnataka and Odisha. I worked on phase 1 of the project, to conduct desk review of current sanitation situation and research feasible faecal sludge to energy options for the 2 states. Sanitation is poor and problems of open defecation, lack of proper drainage, service delivery and waste disposal are common. Lack of awareness about health impacts of poor sanitation coupled with the scarcity of funds, has resulted in deficient services for improving sanitation. The purpose of this practicum was to help the organization conduct primary research on the topic.

Methods: I reviewed 16-17 GOI national sanitation documents summarizing the existing sanitation situation for the two states and conducted internet searches on the existing faecal sludge -energy options, all to be presented to various stakeholders by Swasti.

Results: A presentation was prepared to describe the existing poor state of sanitation. Almost 60% urban slum households have no access to individual toilets, 40-80% households are not connected to underground sewers, open defecation is widespread and both cities lack underground sewage treatment systems. There is a pressing need to scale up sanitation services and provide universal access to safe sanitation.

INTERNATIONAL HEALTH

Name: Baur, Courtney

Practicum Site: Puerto Rican Cultural Center- VIDA/SIDA

Location: Chicago, IL United States

Title: HIV/AIDS Prevention in Chicago's African American Women and Latina Population

Introduction: In 2011, the CDC reported that women of color are disproportionately affected by HIV with incidence rates as follows (per 100,000): 40 for blacks/African Americans, 7.9 for Latinas/Hispanics and 2.0 for whites. Vida/SIDA is an organization in the Humboldt Park area of Chicago that addresses this disproportion through a newly launched women's program, Women for PASEO. This program targets the African American women and Latina population and provides HIV testing, counseling, risk reduction interventions and community referrals.

Methods: I worked mainly with the intervention, Sisters Informing Sisters about Topics on AIDS (SISTA). SISTA is a facilitator led small group intervention to educate and decrease risk of HIV transmission. I assisted in tailoring this intervention to the African American and Latina transgender populations in Chicago. I adapted the SISTA intervention to be culturally relevant for the Latina population. We created SISTA facilitator's guides for each of these populations that will be utilized for the SISTA sessions. I reviewed the Seeking Safety guide which will be utilized in counseling sessions. I also supported the outreach efforts to the target population for their involvement in Women for PASEO.

Results/Projected Results: The projected outcome of this program is to provide HIV testing to 1000 African American women and Latinas per program year. In addition, Women for PASEO will counsel and provide additional resources and interventions, including SISTA and Seeking Safety to the target population. Currently, the program's main focus is outreach to the African American women and Latina populations to increase awareness of this program's services.

Name: Cowan, Marnina

Practicum Site: WAG CHELSEA

Location: New Delhi, India

Title: Volunteer Consultant, Women's Action Group Chelsea

Introduction: As a student consultant to WAG CHELSEA, a non-governmental organization providing educational, vocational and health services to vulnerable women and children in Delhi, India, I conducted research evaluating the impact and perceived quality of the Indian government-sponsored prevention of mother-to-child transmission (PMTCT) program. Additionally I created informational documents on current WAG CHELSEA projects and engaged children aged 6-18 affected by and/or infected with HIV in an art project in which they were asked to draw their unique visions of the World Health Organization's mission of Health for All.

Methods: The practicum involved focus group discussions with outreach workers and in-depth interviews with beneficiaries of the PMTCT program, intensive visits to the organization's project sites and engaging 38 children in drawing about health.

Results/Outcomes: Previously unidentified gaps in retaining women in the PMTCT program were identified which will likely result in the retraining of service providers. Project summary documents will facilitate future funding. The artwork collected will be showcased in an exhibit in Boston titled Drawing on Experience: India's HIV Children and will give an otherwise unheard voice to those children in India dealing with HIV.

Name: Dua, Deeksha

Practicum Site: Boston Medical Center

Location: Boston, MA United States

Title: Research partner

Introduction: Vital Village is a community engagement network to promote child wellbeing and to prevent child abuse and neglect. Initiated at the BMC Department of Pediatrics, it works across three Boston neighborhoods- Dudley (Roxbury/North Dorchester), Mattapan, and Codman Square (Dorchester) by mobilizing a collective investment from residents, community-based organizations (CBOs) and institutions toward building a sustainable community change around child protection.

Methods: I researched the effect of housing insecurity and eviction on child health outcomes to develop a policy brief, which included reviewing literature, participating in group meetings and summarizing policy statements based on review. I participated in community engagement activities of the Vital Village Network including a task force meeting on housing and summarized ideas from the meeting for the website. I also performed a preliminary survey data analysis to study the effect of life course adversities and health promotion among US and Caribbean-born black men. I developed the website for the Vital Village network for which I attended training in WordPress and a qualitative training in stakeholder interviews.

Results/Outcomes: The policy brief on housing and child health outcomes will be published on the website and will inform pediatricians and lawyers, among others in the Vital Village network. The task force meeting on housing brought together lawyers, sociologists and pediatricians and initiated advocacy efforts for housing security for families with children in Boston. The results from the data analysis are awaited. The Vital Village website which includes information about our mission, network members and our recent and upcoming activities is set to launch early next month.

INTERNATIONAL HEALTH

Name: Dugan, Caitlin
Practicum Site: Boston Medical Center
Location: Boston, MA United States
Title: Technology in Health Care and its Application to Sickle Cell Disease (SCD)

Introduction: As a graduate student researcher at Boston Medical Center, I worked with the Pediatric Hematology Division of BMC and faculty educators from the BU Schools of Medicine and Education on a project to improve patient knowledge of sickle cell disease (SCD). I assisted members of a multidisciplinary group in the analysis of previously collected data, reviewed peer-critiqued publications, and helped with the design of a study on how SCD patients might best learn about their disease. The primary goals of the practicum were to understand the means by which patients acquire information about SCD, and to use this information to help improve patient knowledge and, possibly, health outcomes.

Methods: To complete this project, I: 1.) helped to develop an IRB proposal for a study to improve provider knowledge about patient education of genetic and clinical SCD implications. 2.) Created a report which detailed family knowledge of sickle cell disease in the US, accessibility of educational materials for affected families, and current outreach methods of health education regarding heritable diseases. 3.) Investigated the role of mobile phone apps and websites in health education and created an extensive summary of the ways that information is disseminated.

Results/Projected Outcomes: The results of this initiative are expected to increase outreach to patients with SCD and to improve health outcomes. Summary reports, and a presentation, will be completed by the end of the semester, and will be utilized by other group members for additional SCD-related projects.

Name: Egenhofer, Kerstin
Practicum Site: Pulitzer Center on Crisis Reporting
Location: Washington, DC United States
Title: Student reporting fellow

Introduction: The Pulitzer Center on Crisis Reporting is a non-profit organization that fosters independent international journalism. Through its student fellowships the Center pairs public health students with professional journalists mentors to support them as they research and write stories on under-reported public health topics. I investigated the impact of the national social cash transfer program in Malawi, which supports ultra-poor and labor-constrained families. In light of some of the program's successes, various government ministries and NGOs are piloting similar cash transfer programs targeted at different populations.

Methods: I spent five weeks in Washington, DC researching the effectiveness of cash transfer programs and establishing contacts for my three-week stay in Malawi. Once in Malawi I interviewed cash transfer recipients and officials in charge of implementing the national Social Cash Transfer program in the Salima district as well as students, teachers, and local Ministry of Education officials in the Zomba district who are piloting a cash transfer for secondary school students.

Results/Outcomes: During the course of my practicum I produced five deliverables—three written pieces and two multimedia slideshows. After researching, writing, and reworking the pieces with an editor they were published on the Pulitzer Center website, Dowser, and the Huffington Post. The five pieces covered the human impact of the cash transfers as well as the strengths and limitations of cash transfer programs as a development strategy in the region.

Name: Gersten, Zachary
Practicum Site: YouthBuild Just-A-Start
Location: Cambridge, MA United States
Title: YouthBuild Just-A-Start Health Education Curriculum

Introduction: The purpose of this practicum was to build a population-specific health education curriculum for YouthBuild Just-A-Start, an alternative education program that helps high school dropouts attain their high school credentials. Although YouthBuild Just-A-Start provides courses on healthy relationships, depression, and drug abuse, there is no comprehensive course that addresses other health issues relevant to the program's target population (17-24 year old low-income Latino/Hispanic students). The scope of work for this practicum included reporting on the students' health education needs, conducting literature reviews on potential health topics, and designing a health education curriculum that covers 8-10 classes.

Methods: Three data collection methods were used to inform the curriculum. First, case management staff were consulted to identify relevant health topics; second, a literature review on low-income and Latino/Hispanic adolescent health was conducted; and third, 41 students completed surveys to disclose health topics relevant to their daily lives and to their learning interests.

Results/Outcomes: The topics of dental health, nutrition, buying groceries on a budget, contraception and family planning, managing stress as a parent, depression and anxiety, and finding jobs in the healthcare industry were included in the curriculum based on survey results. Per the request of the case management staff and lead science teacher, health insurance procurement, communicating with healthcare providers, LGBTQ health, and global health topics were added. Finally, a basic health intervention project was designed for the students to complete throughout the course for an interactive and group work component.

Name: Haberlach, Marissa

Practicum Site: Boston Medical Center

Location: Boston, MA United States

Title: Improving Program Implementation and Data Monitoring for Pediatric Physical Activity Intervention

Introduction: The bWell Center is a health resource center in the Pediatrics Department, which provides patients and their families with educational materials and promotes community programming. Pediatric providers can refer patients to participate in the Jump Rope Clinic (JRC), a 12-week intervention designed to promote physical activity. The JRC provides children with a jump rope, sets goals for physical activity, and monitors children's progress toward their goals. The bWell Center volunteers register children, teach them how to jump-rope, and complete follow-up to collect data and provide encouragement.

Methods: I worked with the bWell Center Project Manager to improve the existing JRC program and data monitoring system. With input from volunteers, physicians, the current literature, and the Monitoring and Evaluation course (IH745), I redesigned the 12-week intervention, created program materials, and trained bWell Center volunteers on the updated registration, follow-up, and data entry protocols. I also performed quality checks on the volunteers, modified materials as necessary, and evaluated monitoring data.

Results/Projected Outcomes: Since implementation of the redesigned program, 75 children were registered in three months with 56% accuracy. The bWell volunteers completed 15 2-week follow-ups, 4 4-week follow-ups, 3 8-week follow-ups, and 0 12-week follow-ups. 36 children were lost to follow-up. To increase compliance and reduce lost to follow-up, the task was delegated to specific volunteers and the providers will schedule a 3-month follow-up appointment. The JRC Program Guide contains the updated program materials, protocols, scripts, data summaries, and final recommendations for the JRC program implementation and data monitoring system.

Name: Huysman, Bridget

Practicum Site: Dartmouth-Hitchcock Medical Center

Location: Lebanon, NH United States

Title: Research Intern

Introduction: World Health Organization (WHO) defines five moments of hand hygiene (HH) to prevent bacterial transmission. Healthcare-associated infections (HAIs) remain a major public health concern. Evidence supports anesthesia providers practice a low rate of HH, despite numerous HH opportunities. This is concerning as provider hands contribute to intraoperative transmission and 30-day postoperative infections. Improved intraoperative mechanisms to prevent transmission and facilitate HH compliance are required. Dartmouth and UMASS are part of a randomized controlled trial (3200 OR cases) investigating the effect of intraoperative use of a novel, body worn, point of care HH device (SAGE Products LLC.) on 30-day postoperative HAIs against standard disinfectant dispensers and secondarily, HH compliance of providers through feedback via wireless tracking.

Methods: Research team member for four years, my role is multifaceted in all aspects of the investigational process. To this study, I contribute: operations oversight, literature review, protocol preparation, data collection and management, patient chart review, infection checks, logistical support, OR provider education on the device and protocol, and analysis and manuscript drafting in the coming months.

Results/Outcomes: Preliminary compliance data show an average of 6.1 HH events (HHE) per hour using the study device (Target: 8 HHE per hour (Number needed to treat, 7.4; 95% CI, 1.3-13.5)). Standard dispenser use averages 4.9 HHE per day. Perioperative providers are underperforming. A point of care HH device can increase WHO HH compliance. The ongoing study is part of a body of evidence the team is constructing to propose a novel approach to perioperative patient care to prevent HAIs.

Name: Ireland, Alex

Practicum Site: Cross Cultural Solutions

Location: New Rochelle, NY United States

Title: Ascertainment of Family Planning Perceptions and Low Male Involvement

Introduction: Stout traditional views, misconceptions, and lack of access to family planning and preventative contraception education contributed to 750,000 teenage pregnancies in Ghana. Increasing education, access, and male involvement is imperative in addressing this salient obstacle. The purpose of the practicum was to ascertain individual and community perceptions of family planning, preventative contraception use, and general lack of male involvement.

Methods: A literature review was conducted to understand family planning programs and lack of male involvement. With Cross Cultural Solutions, a 36-question survey on family planning, preventative contraception use, and male involvement was created and distributed to men and women within the greater Hohoe region. Representing 80 men and 201 women, a total of 281 were completed and collected between March 5, 2014 and March 21, 2014. The data collected will be analyzed and reported to the Reproductive and Child Health Services, Ghana's Department of Public Health, Cross Cultural Solutions, and the various schools and small businesses in which data was collected.

Results/Projected Outcomes: Of the 281 surveys, preliminary data shows that 88% agreed that family planning is important, 86% wanted to learn more on family planning, and 80% wanted to learn more on preventative contraception methods. Additionally, 74% agreed that family planning involvement amongst men and women should be equal, yet only 14% actually felt that the responsibility was very equal. Stratification among gender and further data analysis is necessary.

INTERNATIONAL HEALTH

Name: Johnson, Kimberly

Practicum Site: The DC Center

Location: Washington, DC United States

Title: Reducing HIV rates with Social Media, Condom parties and drug reduction programs

Introduction: The DC Center was established in 2002 to address the needs of the LGBT community within Washington, D.C. The Center acts as both a physical and online community center, which allows people in the community to locate and attend various events, clubs and programs for support. The DC Center established the HIV Working Group (HWG) to address HIV rates in DC. Currently 14% of gay men in DC are HIV positive which is 5 times as high as the overall rate in DC. As the HIV Program Intern, I am responsible for the HWG's efforts to reduce these rates.

Methods: My responsibilities included: 1) running of events 2) Maintaining and growing an online presence, by posting daily entries on Facebook and Twitter. Observing popularity (views, re-tweets) of posts to determine which posts style and types of information should be repeated, designing flyers and using word of mouth to increase awareness of online presence. 3) Establishing basic sustainable M&E tools for the FUKIT Condom Packing Parties. 4) Assisting with grant proposal(s) by researching.

Results/Outcomes: The online presence of the HWG increased. Facebook "likes" went up by 10.03% and Twitter followers grew by 5.3% from January to April. A basic M&E toolkit was developed for the Condom Packing Parties that included collecting data through a sign in sheet, spreadsheets to analyze data, and an instructional guide. I assisted with the LGBTQ Health and Wellness Grant by researching drug use among the MSM community and best practices of similar drug reduction programs.

Name: Laimins, Audrey

Practicum Site: The Juan Felipe Gomez Escobar Foundation

Location: Bolivar, Colombia

Title: Research Background for Funding Proposal

Introduction: The Foundation Juan Felipe Gomez Escobar (JuanFe) was founded in 2002 to improve the quality of life for adolescent mothers and their children living in extreme poverty in Cartagena. It provides comprehensive healthcare, psychological and emotional support, and training in vocational and life skills. Their model of intervention empowers each teenage mother with the tools to break the cycle of poverty. JuanFe collects data on the health, education, employment and socio-economic situation of girls who have completed the program; however, they do not have a formal impact evaluation. JuanFe is currently seeking research support for development and implementation of a protocol for impact evaluation.

Methods: I conducted onsite observation of training courses, individual counseling, home visits, medical care, and infant monitoring in the day care center, in order to become familiar with JuanFe's intervention model and desired outcomes. I then conducted a comprehensive literature review of similar interventions which address teen pregnancy to identify indicators which could be used to develop an impact evaluation.

Results/Projected Outcomes: In collaboration with Veronika Wirtz, I drafted a funding proposal for an initial site visit by a team from BUSPH/CGHD for a feasibility assessment to: 1) determine quantity and quality of available data for use in future research, and 2) identify training opportunities for BUSPH students at JuanFe. JuanFe is currently seeking funding for this proposal.

Name: Levine, Ashley

Practicum Site: DOORS Ministries

Location: Kampala, Uganda

Title: Intern Consultant for DOORS Ministries; Ggaba, Kampala District, Uganda

Introduction: Doors Ministries works in slum communities of Kampala, Uganda with street children and impoverished families. Current activities include raising 13 former street children in a boys' home, Doors Home, and operating and directing the Namuwongo Outreach Center in the Namuwongo slum of Kampala. This Center is home to Doors Primary School with 89 students, women's education and empowerment programs, and a small-scale clinic that serves the school's student population and their families. The purpose of this practicum was to improve the quality, efficiency and effectiveness of clinic services, and implement programs to promote student health at Doors Primary School.

Methods: Through informal interviews, focus group discussions, observations, gap analysis, and careful research, I recommended, designed and implemented several programs and protocols in the school clinic. As part of the reiterative process, many of these programs were evaluated and modified after implementation to better meet needs and goals of the organization. Additionally, I worked with the women's program to organize and conduct requested health education and skills training seminars.

Results: Programs and protocols implemented through my practicum in school clinic included charting and referral forms, an inventory tracking system, timetables for growth monitoring measurements and albendazole and vitamin distribution, and creation of an overall operational protocol for clinic activities. Each of these aim to streamline clinic activities and ensure continuity of care for students in the absence of a consistent healthcare worker in the clinic.

INTERNATIONAL HEALTH

Name: Maly, Justin
Practicum Site: Heading Home
Location: Boston, MA United States
Title: Heading Home Graduate Intern

Introduction: "Heading Home provides emergency, transitional and permanent housing, and support services, to low-income homeless and formerly homeless families and individuals" within the Boston metro area. Epidemiologists have found homelessness to be an important determinant of health status, with it being shown to be associated with an increased risk of physical illness, chronic disease, and mental health conditions compared to the general public.

Methods: Environmental factors are oftentimes important mechanisms in terms of the disease transmission. The practicum consequently involved conducting site visits at several shelters and housing programs that are managed by Heading Home to evaluate the infection control measures currently in place. A checklist was created and interviews were performed during the process. The practicum also involved communication with Heading Home staff, ranging from case and shelter managers to development coordinators, in regards to specific measures that Heading Home is already taking to improve the health of its clients and the potential for new initiatives. The experience also entailed taking responsibility for Heading Home's Up & Out program, which is the organization's highlight volunteer program that couples volunteer groups with clients that are set to take the step of moving from a shelter into permanent housing.

Results/Outcomes: This practicum provided the opportunity to improve the marriage between the fields of public health and social work. It also, on numerous occasions, allowed one to experience the various sides of a non-governmental organization working with health and homelessness, from actual case management and client interaction to management and development.

Name: North, Margaret
Practicum Site: Initiative to End Child Malnutrition, Massachusetts General Hospital
Location: Boston, MA United States
Title: From Malnutrition to Malnutrition: How International Funding Briefly Fed a District

Introduction: The Ugandan Demographic and Health Survey (2011) reported 42% of children in the Southwest region (inclusive of Rukungiri District) to be malnourished. Since 2009, the Initiative to End Childhood Malnutrition (IECM) has been the only organization treating malnutrition in Rukungiri District. IECM is a collaboration between The Division of Global Health and Human Rights at Massachusetts General Hospital and Nyakibale Hospital. Starting in December 2013, IECM transitioned the project to Nyakibale Hospital and Rukungiri District.

Methods: My duties as Program Coordinator from May 2013 to May 2014 consisted of running all inpatient and outpatient services for IECM. Major daily tasks included: reporting and ordering supplies of F100 and F75 (high-energy milk) and Ready-to-use Therapeutic Food (RUTF); coordinating trainings; managing clinical care; hiring, payroll, and disciplining outreach staff; liaising with government officials and NGOs; and strategic planning.

Results/Outcomes: Quantitative results during the height of IECM's programming included, on average each month: treating 48 outpatients and 18 inpatients; visiting 21 sites; screening 212 children; and distributing 6,953 sachets of RUTF. Intensive financial support from IECM during this time period included: a vehicle, salaries, inpatient fees, and infant formula. After December 2013, there was a sharp decrease in external funding, followed by a decrease in services provided by as much as 50% to 60%. While the quality and continuity of services has been impacted, the hope is that trainings, technical support, and provision of nutrition supplements will continue to decrease rates of malnutrition in Rukungiri District.

Name: Porter, Adam
Practicum Site: Global Family Initiative
Location: Addis Ababa, Ethiopia
Title: Principle Investigator

Introduction: Betasab Inc. is an organization that aims to help orphaned and vulnerable children in Lafto sub-city through group homes, an educational sponsorship program, and income generating activities. As the principle investigator, I conducted survey to 259 homes in Lafto to see what the most prevalent needs of families are. The survey identified general household demographics, health status of the children and caregivers, economic resources, and material wellbeing. Additionally, six qualitative interviews were conducted with health professionals to obtain a further understanding of the situation in Lafto.

Methods: After being trained by a public health professional, eight Health Extension Workers conducted a survey to 259 random homes in Woreda 12 of Lafto. The survey obtained quantitative and qualitative data about children, caregivers, and other members of the household. I analyzed the data in SPSS v.20 to obtain frequencies of various variables.

Results/Outcomes: The survey showed that the biggest concerns lie in money for education, nutritious food, and clothing. Approximately 25% of the children had only one outfit, and did not own shoes; furthermore, many children missed meals in the last month because their caregivers could not afford food. The health professionals explained that support for the children alone is not enough; rather the entire family of OVC needs support. Betasab, and other organizations can use this report to create improved, sustainable programs that better serve the OVC and their families in Lafto.

INTERNATIONAL HEALTH

Name: Princeton, Stephanie
Practicum Site: Boston Medical Center
Location: Boston, MA United States
Title: The Role of “Burdensomeness” as a Predictor of Hospital Readmission

Introduction: The Patient Readmission Evaluation Tool (PRET) is a questionnaire being developed by the PCORI research team in the department of Family Medicine, Boston Medical Center. The purpose of this tool will be to better understand patient-identified reasons for a hospital readmission. The tool seeks to establish what the patient believes could have been done differently to prevent the hospital readmission. The project is being funded the Patient-Centered Outcomes Research Institute (PCORI). Among the domains already identified as hospital readmission antecedents, “Burdensomeness” is one that has not been adequately reviewed by the research team. This domain specifically involves a patient’s perception of self as a burden to family and/or care givers. My task will therefore involve filling this gap in the team’s current knowledge base.

Methods: I will collect qualitative data from semi-structured patient interviews. I will also review publications on the topic of “Burdensomeness,” conducting searches in well-known databases. I will synthesize a summary based on basic thematic analysis of qualitative data collected, as well as findings from the literature review.

Results/Projected Outcome: To date things completed are: 1) Clinical human research certifications 2) IRB application necessary for participation in the study 3) REDCap Training. By the end of the practicum, I will prepare a report summarizing findings from qualitative analysis and from my literature review. I will then make recommendations to the research team based on my summary report.

Name: Riddle, Savannah
Practicum Site: Consortium on Gender, Security and Human Rights
Location: Boston, MA United States
Title: Militarization of Aid & Women’s Health in Armed Conflict

Introduction: The Consortium on Gender, Security, and Human Rights, is a Boston-based organization focused on bridging the gaps between research and practice. The practicum project was to provide information that could be used by advocacy groups in community settings. The project goal was to give broad information to the Women’s Regional Network (WRN), a network of women leaders working with communities in South Asia, in order to facilitate inclusion of women in discussions of stability and security.

Methods: I led two team research projects that examined the impact of armed conflict on women. The principle objectives of these research projects were to: 1) expand an annotated bibliography on militarization of aid; 2) develop an annotated bibliography on women’s health in armed conflict. In order to stay committed to the “on-the-ground” impact, we did not include theory-based resources.

Results/Projected Outcomes: We found a significant gap in the literature. While quality resources exist relating to community impact and population health within armed conflict, women’s health topics beyond HIV and gender-based violence are largely absent. The completed projects were given to the WRN to utilize in their work within the local communities of Afghanistan, Pakistan, and India. This will enrich network dialogue, increase engagement of women in security stabilization, and guide WRN strategic planning.

Name: Ryan, Lindsey
Practicum Site: Alkermes
Location: Waltham, MA United States
Title: New Product Planning Intern

Introduction: Schizophrenia is a debilitating disease, which affects approximately 1% of the US population. Due to the nature of the illness, lack of insight and noncompliance with medication continue to be problematic within this population. Alkermes, Inc. intends to launch a new long acting injectable, Aripiprazole Lauroxil, in 2015. Alkermes anticipated launch date falls two years after the release of Maintena. The purpose of this practicum was to build competitive intelligence by determining where and how Maintena is currently being used, as well identify prescribing obstacles to maximize uptake upon Aripiprazole Lauroxil’s release.

Methods: To address these unknowns I: 1.) Analyzed past Medicaid claims data to determine profile of current LAI users and the pathway to LAI prescription; 2.) Observed IPSOS provider interviews; and 3.) Created a Schizophrenia pipeline tracker.

Results: Analysis of Medicaid claims data revealed: a larger portion of African Americans received LAI’s compared to all other races, neurotic and depressive disorders are the top two diagnoses prior to a diagnosis of schizophrenia, and on average it took an individual 18 days to be placed on an atypical and 91 days to be placed on an LAI. IPSOS provider history revealed four patient profiles: chronically ill, non-compliant, side effects and/or metabolic history, and young, recently diagnosed patients. Finally, the main obstacle of prescribing Maintena was lack of insurance coverage and limited provider exposure. These findings were presented to the new product planning team and will continue to be addressed by followed by the new product planning intern.

Name: Taylor, Alyssa

Practicum Site: Boston Medical Center / Boston University School of Public Health

Location: Boston, MA United States

Title: Research Assistant

Introduction: The Injury Prevention Center of Boston Medical Center conducts research and provides interventions to prevent recurrent injuries using a community based approach to patient care. , As part of a research team, I participated in a follow-up study about violent trauma recidivism in patients that come to the emergency room with a violent injury. The objectives of the study are 1) to determine whether patients with Post Traumatic Stress Syndrome (PTSS) are more likely to be recidivist of intentional violent trauma than those without PTSS, and 2) make recommendations for treatment based on study results.

Methods: Working with the Principal Investigators and Research Assistant I extracted data from patient records pertaining to emergency visits, compiled indicated information into an excel file, and analyzed the data using several statistical analysis measures (t-test, chi-square, descriptive statistics measures).

Results/Outcomes: The compilation of data and early statistical analysis have been completed. The team is now reviewing the analysis and will write up the study results for publication if the findings yield differences between the study participant groups.

Name: Usmani, Areej

Practicum Site: Zambia Center for Applied Health Research & Development

Location: Lusaka, Zambia

Title: Managing the Data Quality and Data Collection Instrument Design for Research Projects in Zambia

Introduction: The Zambia Center for Applied Health Research and Development (ZCAHRD) is a non-governmental organization based in Lusaka and partnered with Boston University's Center for Global Health and Development (CGHD). ZCAHRD and CGHD work together with other funders to implement programs and conduct policy based research on various public health issues, such as the prevention of mother to child transmission (PMTCT) of HIV/AIDs, road safety and malaria.

Methods: From July 2013-December 2013 I was involved with data management of several ongoing projects at ZCAHRD, including the Impact Assessment of Sanitation and Hygiene Project Scale-up Program (WASH), the Impact of Deploying Community Health Assistants (CHA) study, BU Prevention of Mother to Child Transmission Integration Project (BUPIP) and the Fever study. My tasks were to perform data cleaning and data collection at rural clinics, work closely with the PIs to develop collection instruments using TeleForm and train local data collectors, and give presentations on proper handling of forms.

Results/Outcomes: I gained valuable experience in the data management process, from developing the instruments to writing code. Specifically, I learned how to address problems that arise from incomplete datasets and gained skills in TeleForm. Towards the end of my internship, I created a quality control document for data collection, which was used in several studies and presentations.

MATERNAL & CHILD HEALTH

Name: Abdelmegeed, Manar
Practicum Site: MA Department of Public Health
Location: Boston, MA United States
Title: Research Intern, Maternal Mortality Review Project

Introduction: The Massachusetts Department of Public Health (MDPH) is a governmental agency of the Commonwealth of Massachusetts with several bureaus that serve and consider regulations to improve public health, particularly in underserved people. Substance use and depression in pregnant women are major health problems that may have medical, social, and even legal implications. Massachusetts Department of Public Health (MDPH) and Massachusetts Perinatal Quality Collaborative (MPQC) implied that additional guidelines and recommendations might be needed to prevent such deleterious impacts.

Methods: I am working with Director of the Division and Public Health Nurse Advisor. Responsibilities include: 1) Conducting a retrospective maternal mortality review (2001-2010) to be familiar with their background. I observed that mothers are usually hopeful soon after delivery and “can see a bright future” as one stated, but they usually become vulnerable and deteriorate afterwards; 2) Developing a survey to Massachusetts’ birth hospitals on their current practice related to screening, testing and referring pregnant women and new mothers who are positive for substance use and depression; 3) Analyzing the data; current screening and care methods; and 4) Presenting the results at the MPQC summit, April 2014.

Results/Outcomes: To improve maternal health outcomes, it is crucial for health care providers to have efficient and easily applied regulations for screening and providing care for pregnant women. At conclusion of this practicum, the presented results will include: 1) Detailed background of deceased mothers; 2) Discuss currently applied screening methods in birthing hospitals; and 3) Recommend best practices to further improve maternal health care.

Name: Bhakta, Seema
Practicum Site: MA Department of Public Health
Location: Boston, MA United States
Title: Outreach and Evaluation Intern

Introduction: The Birth Defects Monitoring Program within the Massachusetts Department of Public Health is responsible for the collection of information regarding all prenatal and postnatal diagnosed cases of birth defects from all delivery hospitals and selected providers. The program would like to provide outreach to private practices to increase reporting of birth defects in order to avoid missed cases and improve the accurateness of its prevalence rates.

Methods: I constructed outreach materials that were provided to private obstetric practices during Birth Defects Prevention Month to increase awareness about the Birth Defects Monitoring Program, in addition to encouraging physicians to take action in reducing birth defects. Furthermore, I also collected data using Google Analytics and monitored web traffic weekly from January to March in order to assess a change in program awareness. Currently, I am assessing whether prenatal ultrasound diagnostics from an individual facility captures the ascertainment of birth defects cases that would be missed from other surveillance data sources.

Results/Outcomes: During the month of outreach, web traffic increased but then gradually declined and stabilized. Within the Birth Defects Monitoring Program website, the subpage of surveillance reports had the greatest traffic. Assessment of prenatal data is still ongoing, however data for prenatal diagnostics cannot be distributed outside of the department.

Name: Bostian, Brienne
Practicum Site: Prevent Blindness America
Location: Boston, MA United States
Title: Children’s Vision MA Graduate Student Assistant

Introduction: Massachusetts was selected by Prevent Blindness to be one of five pilot states of the National Center for Children’s Vision and Eye Health to receive an award from the MCHB. This led to the establishment of the Children’s Vision Massachusetts coalition. The coalition’s mission is to create a systematic approach to children’s vision services that assures all children have the opportunity to develop and retain their best possible vision to support healthy development and academic growth.

Methods: I was responsible for designing and implementing evaluation of an HRSA/AAP funded project designed to educate and raise awareness of children’s vision as a critical health issue through partnership with the MA Dept. of EEC Community Resource and Family Engagement grantees; authoring messaging materials for legislative action and parent/provider education of the CVMA coalition; directing a video on the topic of children’s vision including interviews with national leaders in pediatric medicine and vision health; was a member of the organizing committee for Children’s Vision Advocacy Day at the Massachusetts State House, October 30, 2013; and author of a Resource Guide for pediatric vision care in Massachusetts to provide insurance and provider information to parents seeking care for children.

Results/Outcomes: At the conclusion of this practicum, I will have completed education awareness evaluation in conjunction with the MA Dept. of EEC, and CVMA will have for future use a resource guide for families, new messaging materials for legislative and educational use, and a video to be used as a PSA for outreach and education.

MATERNAL & CHILD HEALTH

Name: Bussell, Corie
Practicum Site: Municipal Secretary Of Health Office Buritis, RO Brazil
Location: Buritis, Brazil
Title: Rede Cegonha Program Development Assistant

Introduction: The state of Rondonia, Brazil has one of the world's highest rates of cesarean birth in the world, 65% in 2010. In the municipality of Buritis, where I conducted my practicum, 78.5% of births were conducted by cesarean in 2011. "The Stork Network" is an initiative by the Brazilian federal government through the Unified Health System (SUS) to improve the care of women during pregnancy, delivery, and postpartum. The objective is to assist health professionals to provide more humane and safe care. For the first year, the Municipality of Buritis, a city of about 35,000 in legal Amazonian Northwest Brazil, received funding to begin the implementation of Rede Cegonha.

Methods: My main role was to provide planning and implementation support for the Rede Cegonha initiative. I worked directly with the local staff at the municipal run health clinic to develop a written educational tool for prenatal clients and carried out a municipal level maternal health needs assessment, identifying strengths, gaps, and challenges in program implementation, and suggested recommendations for quality improvement.

Results/Outcomes: My deliverables included a maternal health needs assessment for the municipality and the creation and publishing of a culturally relevant and targeted educational baby book tool for distribution within the municipal health clinic. The tools can be used to enhance consistency and quality of prenatal care education and improve program planning and implementation for the future.

Name: Choi, Ruth
Practicum Site: Hockomock Area YMCA
Location: Foxboro, MA United States
Title: Prescription for a Healthy Lifestyle Intern

Introduction: Hockomock Area YMCA's Promoting Achievable Change (PAC) Program, under the Prescription for a Healthy Lifestyle (PHL) initiative umbrella, is an intervention program for children with high BMI's. Through weekly one-hour group classes that include parent participation the curriculum provide participants inquiry- and problem-based instructional approaches, and higher order thinking skills where children learn about nutrition, participate in nutrition activities and physical activities and learn to set small realistic goals to support sustainable behavior changes.

Methods: The PAC Program uses a multi-level evaluation system that includes regular reviews of student performance through a pre- and post-test, and feedback from a variety of critical stakeholders: administrators, students and parents, and PAC instructors. Based on the feedback and the multi-level evaluation, my role was to revise the nutrition curriculum by analyzing the feedback, auditing and reviewing the current curriculum, and adding in any gaps in knowledge.

Results/Outcomes: The curriculum development staff recognized that clear processes and guidelines that ensure internal consistency, and activities that support learnings were important to the development of quality lessons to ensure instructional effectiveness. The revised curriculum has been restructured and plans to go into effect Summer/Fall 2014.

Name: Daughton, Ashlynn
Practicum Site: Fenway Community Health
Location: Boston, MA United States
Title: The Fenway Institute & The Massachusetts Commission on LGBTQ Youth - LGBTQ Youth Database Intern

Introduction: According to the 2011 Massachusetts Youth Risk Behavior Survey, students that identify as gay, lesbian or bisexual were over seven times more likely to have attempted suicide in the past year, more than twice as likely to have skipped school because they felt unsafe and twice as likely to have been injured or threatened with a weapon at school. It is imperative that these youth have access to appropriate, culturally competent health care and community support services. To that end, The Fenway Institute and the Massachusetts Commission on LGBTQ Youth identified the need for a database of LGBTQ youth services.

Methods: A database of service providers with culturally competent LGBTQ youth services was curated by the Massachusetts Commission on LGBTQ Youth and the Executive Office of Health and Human Services. Services were classified, organized by search terms to be used in the online application and vetted for cultural competency.

Results/Outcomes: This project resulted in the establishment of an accurate database and online map application detailing culturally competent LGBTQ youth services throughout Massachusetts. The project is currently available for use by a small group of state agency staff to increase youth access to services and will eventually be available for broader state agency and public use. In the coming months, this application will hopefully inform relevant policy recommendations regarding LGBTQ youth health needs and the distribution of resources throughout the state.

MATERNAL & CHILD HEALTH

Name: Driscoll, Kelsie
Practicum Site: Boston Medical Center
Location: Boston, MA United States
Title: Children's Health Watch Intern

Introduction: In February 2014, the U.S. Senate passed a Farm Bill that will cut \$8.6 billion from the Supplemental Nutrition Assistance Program (SNAP) over the next 10 years- an average decrease of \$90 per month per family. Children's Health Watch (CHW) works to bring timely scientific evidence about the links between hardships associated with poverty and children's health into the public policy arena. In 2013, CHW published a report revealing that SNAP assistance acts similarly to vaccination among low-income children, protecting them against many negative health outcomes faced by their non-SNAP receiving counterparts. Despite evidence for its effectiveness, SNAP funding is still threatened at a political level. This study aims to address the arguments in favor of SNAP cuts using previously collected data.

Methods: This practicum involves (1) interviewing parents of children under three years in the Pediatric Emergency Room to expand CHW database; (2) reviewing of publications around SNAP and children's health, compiling demographic information on current and former SNAP users, and becoming well versed in recent news and media on 2014 Farm Bill; (3) developing study aims to address arguments in support of SNAP cuts.

Results/outcomes: Primary findings will advance knowledge around characteristics of SNAP-receiving families. Potential findings could offer counter-evidence to arguments in favor of SNAP cuts for public health advocates and policy makers, helping to secure SNAP funding in the future.

Name: Ferraro, Nicole
Practicum Site: Brookline Department of Public Health
Location: Brookline, MA United States
Title: Public Health Intern, Brookline Health Department, Youth Substance Abuse and Violence Prevention

Introduction: The division of Youth Substance Abuse and Violence Prevention of the Brookline Department of Public Health aims to engage the youth of Brookline by educating them about various relevant health topics. The program achieves these goals through a peer education model applied to a Peer Leadership course offered at Brookline High School. The role of the peer leaders is to create and execute educational programs and mass media campaigns throughout Brookline High School and local middle schools. The purpose of this practicum was to assist in the implementation course.

Methods: Practicum activities included: 1) co-instruct the peer leadership course educating peer leaders about relevant topics and possible intervention methods 2) assist students in the creation of campaigns and educational programs presented by the peer leaders on teen dating violence, depression, bullying, and substance use; 3) support the Brookline wellness committee in their efforts to coordinate service and promote health and wellness in the community.

Results/Outcomes: School-aged youth were enabled to develop leadership skills and make health protecting decisions. Promotional materials and a new course curriculum were developed, programs and events were successfully executed and the Brookline wellness committee was well supported.

Name: Gaynes, Jamie
Practicum Site: Massachusetts Alliance on Teen Pregnancy
Location: Boston, MA United States
Title: Public Policy Intern

Introduction: As a member of the public policy team at Mass Alliance on Teen Pregnancy, a Boston-based organization dedicated to improving the quality of life for young families as well as preventing teen pregnancy. The Mass Alliance looks at legislation that affects young families all over the state on a several issues including housing, transportation, education and childcare. This organization works to train and mobilize young people to become active in the legislative process.

Methods: I am working directly with the Alliance's public policy team. Responsibilities include tracking and analyzing all House and Senate bills that affect our target population, communicating to our member about hearings, training youth advocates, and attending meetings with lobbyists. I will plan a lobby day for over 600 attendees at the State House to address legislation including S.B 208.

Results/Projected Outcomes: At the end of the practicum I will have trained over 50 youth to share their stories with elected officials and grown the Alliance's network of advocates. It is important for the supporters to stay informed on how the legislative process and how the bills will affect them. My work will have allowed the agency to better organize the lobby day by creating a detailed tracker of the training efforts, increase lobbying efforts with legislative office outreach, and implement a new data system.

MATERNAL & CHILD HEALTH

Name: Gebel, Christina

Practicum Site: Boston Association for Childbirth Education

Location: Newtonville, MA United States

Title: The Path to Doula Services Reimbursement in MA and the Future of Childbirth Education

Introduction: The Boston Association for Childbirth Education & Nursing Mothers' Council (BACE-NMC) seeks to address the problem of mothers' limited access to doula support during birth as well as during the pre- and postnatal periods. This practicum focused on steps required to assure that state and private health insurance reimbursement for doula services will exist in the state of Massachusetts. It also intends to assess the breadth and quality of the existing state of childbirth education programs in the United States in order to identify gaps and make recommendations for future improvement.

Methods: Practicum activities included: 1) conducting an extensive literature review on the benefits and current status of reimbursement of doula care; 2) designing fact sheets to inform policy makers and payers; 3) conducting key informant interviews with advocates in states with existing reimbursement systems; and 4) initiating the IRB submission process in order to conduct a focus group with childbirth education alumnae in the summer of 2014.

Results/Outcomes: The literature review yielded evidence for numerous benefits for mothers as well as rates of breastfeeding, which were highlighted in fact sheets. The key informant interviews with advocates illuminated strategies to achieve doula reimbursement that can be imitated in MA. Collectively, these, the anticipated focus group learnings, and other BACE-NMC efforts will enable women to have greater access to supportive birth services.

Name: Grasso, Luz

Practicum Site: Healthy Start of North Central Florida Coalition

Location: Gainesville, FL United States

Title: Intern for SafeKids at Healthy Start North Central Florida

Introduction: Unintentional Injuries are the #1 killer of children ages 0-14y in the United States. The purpose of this practicum was to incorporate a comprehensive injury prevention program (SafeKids), into the established Healthy Start program of North Central Florida Coalition. The Coalition includes 12 counties and targets families at risk of poor birth, health, and developmental outcomes by providing coordination of essential services and home visitation by care coordinators.

Methods: The project consisted of a partnership between Healthy Start and SafeKids. I participated in planning sessions in order to develop an implementation plan and create objectives for the proposed integration. We researched and ordered effective educational materials for distribution at community and teaching events. I assisted at car seat stations where reduced cost car seats were supplied and installed correctly by Child Passenger Safety (CPS) Technicians. I attended and educated parents at hospital hosted event. We had the opportunity to teach a class at the University of Florida School of Public Health, where we shared with upcoming public health practitioners the importance of injury prevention in children.

Results/Outcomes: The team developed an injury prevention component for inclusion in the Healthy Start Program. A revised service delivery plan for Healthy Start was submitted to the Florida Department of Public Health for review. The goal is to provide strategic injury prevention education/support to families and become a model for other community-based programs. The inclusion of the injury prevention component should contribute to a decrease in unintentional injuries in children aged 0-3 in North Central Florida.

Name: Iqbal, Ammarah

Practicum Site: Brookline-Quezelquague, Nicaragua

Location: Brookline, MA United States

Title: Student Researcher

Introduction: As part of a team of students from the US in conjunction with Brookline-Sister City Organization, I worked on a number of projects with the community members in Quezalguaque, Nicaragua. The projects included a prevalence study of cervical cancer screening, a large survey study of hydration practices, a pilot sexual education course in secondary schools, and a revitalization of the community healthworker program. The purpose of the practicum was to engage with community members on these projects.

Methods: With close contact with community leaders, we 1) reviewed medical records to assess for cervical cancer screening, 2) Created and implemented a survey on a community sample to assess hydration, 3) Led groups of single-sex sex education, and 4) organized negotiated a long term plan with the health center and CHWs.

Results/Outcomes: The record review was used to discuss options for improvement with the health center including alternate screening methods and potential for HPV vaccines, 2) The survey study was continued by local medical students and will be used to address a hypothesis related to poor hydration habits and chronic kidney disease, 3) the sexual education course was well- received and will continue with the next team of US students, and 4) our work served as a starting point for collaboration between the health center and the community health workers. More work needs to follow regarding trainings, budgeting for supplies, and communication between the health center and CHWs.

MATERNAL & CHILD HEALTH

Name: Johnston, Katherine
Practicum Site: Ibis Reproductive Health
Location: Cambridge, MA
Title: Intern/Research Assistant

Introduction: As an intern at Ibis Reproductive Health, I worked to support three projects that aim to fill gaps in research about reproductive healthcare by documenting women's stories, experiences, and knowledge. The three projects aim to describe the information teenage girls with epilepsy need to improve their sexual and reproductive care; the support second-term abortion providers and clients need to improve women's clinic experiences; and how current certain state policies are affecting women's experience with obtaining abortions.

Methods: I contributed to the collection and analysis of over 30 in-depth interviews and 12 focus groups by working as part of the transcribing, coding, and summarizing teams. Additionally, I managed the recruitment of study participation by developing and implementing a communication and social media plan and maintaining relationships with partnering clinics and centers.

Projected Outcomes: Findings from each of the three projects will be translated into recommendations for how to improve care for each population, and in collaboration with provider and advocacy organizations; the results of each project will be presented to sexual and reproductive health stakeholders and organizations. The results can be used in future advocacy efforts in state and national levels to improve access to reproductive healthcare.

Name: Kelly, Lisa
Practicum Site: Boston University School of Medicine
Location: Boston, MA United States
Title: Research Assistant

Introduction: Community violence is a pervasive public health problem in the United States that disproportionately effects urban, low-income, minority youth. Community violence exposure is related to PTSD, delinquent behavior, poor school performance, and many other somatic and depressive symptoms. Trauma-Focused, Cognitive Behavioral Therapy (TF-CBT) has been identified as an evidence-based therapy effective in diminishing the negative effects of violence exposure.

Methods: Our pilot study investigated the utility of a group-format, TF-CBT for Boston minority youth exposed to community violence. The 10-week program followed a TF-CBT model utilizing parental involvement, teaching coping skills, and working through a trauma narrative. Male and female groups were conducted separately. Qualitative interviews were conducted pre-intervention, immediately post-intervention, and three months following the conclusion of the program.

Results/Outcomes: 12 male and 8 female child and parent diads began the program with 7 male and 7 female diads completing the program. Qualitative analysis revealed that all participants were exposed to community violence and experienced stress related effects including fear, anger outbursts, and social isolation. After program participation, youth expressed confidence in using mindfulness and social coping skills. Male participants saw improved anger control while female participants emphasized the importance of improving communication with friends and family. The group-format created opportunities to expand social networks and practice communication skills. Youth also felt a greater sense of belonging with peers through a group-format program. Further studies should investigate the benefit of group-format TF-CBT programs in community settings.

Name: Laplante, Ivy
Practicum Site: Blackstone Elementary School-based Health Center/South End Community Health Center
Location: Boston, MA United States
Title: Blackstone Innovation School Health & Wellness Intern

Introduction: The Blackstone Innovation School in the South End is home to Boston's first and only elementary school-based health center, the Gerald Hass Center. In 2013 the Blackstone Wellness Committee was formed to better the health and wellness at the school. Last semester in Fall 2014 I was a member of a student team that created a consultant report identifying seven recommendations for the community to improve engagement in health and wellness at the school. The goal of my practicum was to work with the Blackstone community to implement these recommendations.

Methods: As per consultant report recommendations, I spearheaded efforts with the Blackstone school nurse, PE teacher, school curriculum development coordinator and grade 2 teachers to develop a health curriculum. I obtained the Michigan Model for Health Curriculum materials from the BPS Wellness Department and presented it for adaptation to the Blackstone. I also assisted in efforts to construct a Blackstone food policy by providing information on best practices.

Results/Outcomes: I co-developed the Blackstone Health and Wellness Curriculum, which will be piloted in grade 2 classes in the 2014-2015 school year. The school food policy will continue to be developed by the Blackstone Wellness Committee and Parent Council using my recommendations. In addition, I created a Boston Physical Activity Resource Guide to inform Blackstone parents on ways to involve their children in activities around Boston. Continuing development of other health and wellness policies and programs at Blackstone Innovation School will further help better the wellbeing of students and families.

MATERNAL & CHILD HEALTH

Name: Mak, Anna
Practicum Site: Hockomock Area YMCA
Location: Foxboro, MA United States
Title: Prescription for a Healthy Lifestyle Program Intern

Introduction: Prescription for a Healthy Lifestyle (PHL) was developed by the Hockomock Area YMCA in response to alarming increases in chronic diseases in the surrounding 15 towns. The initiative aims to combine prevention and intervention programs in the community-based wellness center setting that are tailored to the specific needs of various high-risk individuals. The programs I was involved in include: LIVESTRONG at the YMCA - a cancer survivorship program, Exercise is Medicine - a disease prevention program for those who are new to exercise, Promoting Achievable Change - an intervention program designed for youth ages 7 to 14 with a high BMI. The purpose of my practicum was to assist in determining the effectiveness of these programs, while also providing support in the organization of a large scale health promotion event, Healthy Kids Day, to be held at Gillette Stadium in Foxborough, MA.

Methods: Quantitative and qualitative pre and post assessments were collected on all programs and inputted into a centralized database to be used for program evaluation. Data collection methods were evaluated and revisions were made to existing questionnaires and reformatted to streamline data collection. Community outreach was exercised to garner community vendors and sponsorships needed for Healthy Kids Day.

Results/Projected Outcomes: Projected outcomes for these programs include sustained health improvements among participants and reductions in chronic disease in the community surround the YMCA. The number of secured vendors is increasing daily for Healthy Kids Day.

Name: Paul, Abigail
Practicum Site: Boston Medical Center
Location: Boston, MA United States
Title: QI Intern

Introduction: Emergency cesarean sections are performed in obstetric emergencies in which pregnancy or labor complications require immediate action to ensure the safety of mother and/or baby. Currently, ACOG recommends that hospitals should be capable of performing an emergent cesarean section, from decision to skin incision within 30 minutes. Boston Medical Center aimed to investigate the current state relative to the timing of emergent cesarean sections and design interventions for improving both the timing and safety of this delivery method.

Methods: As the QI Intern, I used various quality improvement tools to evaluate the current process of emergent cesarean sections and to make recommendations to improve timing and safety. This included processing mapping the ideal and target state, a control chart to measure variance, root cause analysis, literature reviews, and an effort/impact chart to organize and prioritize interventions.

Results/Outcomes: The projected outcome is to reduce the average time between decision-to-incision for emergent cesarean sections. As a tertiary care center, BMC believes that they should be able to perform the majority of these cesarean sections within a 20-minute decision-to-incision timeframe without sacrificing patient safety. By utilizing the QI tools and recommended interventions, BMC hopes to begin to work towards this goal.

Name: Pechulis, Kristina
Practicum Site: Harvard School of Public Health
Location: Boston, MA United States
Title: My practicum is at the Program on the Health Rights of Women and Children, FXB Center for Human and Health Rights with Alicia Yamin.

Introduction: Due to the expense and difficulty of litigation, legal challenges for health rights have decreased. As enforcement of health-related laws weakens, the ability of individuals and families to promote their own health rights and manage their own health risks has decreased. In my practicum, I helped to prepare for the Global School on Socioeconomic Rights, a course developed by Alicia Yamin, lecturer on global health at Harvard University and conducted in September 2013. The course, geared toward lawyers and human rights practitioners, was designed to educate and provide the skills needed to utilize litigation to promote health rights, particularly those of women and children.

Methods: Throughout my practicum, in addition to providing support logistically, I performed extensive literature searches on the current state of health, economic and social rights litigation throughout the world. The literature searches I completed were used to educate the participants and instructors. I also helped to reorganize and rewrite case studies used by participants; the case studies provided examples of how enforcing health-rights related laws can directly affect an individuals' health.

Results/Outcomes: The Global School was successfully completed. Forty-four people from 24 countries participated from around the world. Nine instructors, who are experts in their field, taught the course throughout the week. At the end of Global School, participants had an understanding of health rights on the national, regional, and international levels and gained tools on how to use litigation to enhance health systems and to advocate for individuals.

MATERNAL & CHILD HEALTH

Name: Riggs, Jessica

Practicum Site: AIDS Action Committee of Massachusetts

Location: Boston, MA United States

Title: Graduate Level Program Evaluation Intern at AIDS Action Committee of Massachusetts

Introduction: I completed my practicum as The Program Evaluation Intern at The AIDS Action Committee of Massachusetts. Reporting directly to and shadowing the Program Evaluation Manager, I worked on the following activities. 1. Revision, Administration (75 client interviews) and Analysis of a Client Satisfaction Survey in the Cambridge and Boston locations, 2. Data monitoring and record keeping of the LEAP project, a national study for vulnerable HIV positive patients, and 3. Responding to data requests and inquiries from outside agencies.

Methods: These activities' purpose was to strengthen data analysis and program evaluation and monitoring skills, gain experience in a Public Health practice setting, and be introduced to management methods at the agency. In order to complete the analysis of the survey—which was comprised of quantitative and qualitative data, I used Excel software.

Results/Outcomes: Upon completion of a seven-month internship (of more than 300 work hours), I presented my findings from the Client Satisfaction Survey to the management teams for the Lynn, Boston and Cambridge locations of AIDS Action Committee. I provided recommendations for agency improvement, identified possible gaps in services and reported clients experiences, both positive and negative, all with the purpose of stimulating some ideas for a quality improvement initiative in the coming year. In addition, I also learned an immense amount about HIV/AIDS, HIV/AIDS in the USA, homeless populations and vulnerable groups in Boston, Excel software, addictions interventions, the harm reduction model in practice, and the strengths and limitations of program monitoring and evaluation.

Name: Saunders, Cara

Practicum Site: AIDS Action Committee of Massachusetts

Location: Boston, MA United States

Title: Harm Reduction and Needle Exchange

Introduction: The Cambridge Needle Exchange is operated by the non-profit organization AIDS Action Committee and provides clean needles to injecting drug users. The program operates on a harm reduction model and promotes positive change according to the clients' desires. In addition to providing clean needles, they assist clients in obtaining housing, employment, substance abuse treatment, and medical treatment. They also provide training on opioid overdose prevention, conduct HIV and HCV testing, and distribute safer injecting and safer sex materials.

Methods: I worked as a needle exchange intern. My responsibilities included enrolled new clients in the needle exchange program by collecting sexual and drug use history and informing them of the services offered by the needle exchange. I facilitated needle exchanges by collecting used needles and distributing new ones, as well as logging, tracking, and entering each exchange in the online database. I also engaged with clients in conversations about harm reduction, safer injection practices and safer sex and assisted them in accessing resources such as housing, primary care, employment, and substance abuse treatment.

Results/Outcomes: In addition to gaining experience in the public health field and direct work with injecting drug users, I learned how to enroll clients in the ETO software database. Deliverables included a field guide for expectant mothers and their case managers on navigating substance use during pregnancy.

Name: Schwartz, Kimberly

Practicum Site: Boston University School of Public Health (BUSPH)

Location: Boston, MA United States

Title: Introductory qualitative assessment to understand the factors that explain why providers do or do not contact Child Protective Services (CPS) for medical neglect.

Introduction: The American Humane Association defines medical neglect as, "the failure to provide appropriate health care for a child (although financially able to do so), thus placing the child at risk of being seriously disabled or disfigured or dying."¹ In the United States in 2012 there were 15,705 cases of medical neglect substantiated by Child Protective Services (CPS), but the true number of cases is believed to be much higher.² Depending on the child's underlying medical problem, medical neglect may place a child at high risk for adverse health outcomes including death. Pediatric providers are mandated to report medical neglect to CPS, but there is no consensus among providers about when to make this report. This study seeks to explore the factors that affect pediatric providers reporting medical neglect to CPS.

Methods: Purposeful sampling of pediatric healthcare providers was done to identify thoughtful physicians, nurses and social workers from the four major pediatric medical centers in Boston. 12 semi-structured, key informant, in-depth interviews were conducted and transcribed. A codebook was generated to capture ideas generated by the interviewees. Utilizing grounded theory with a constant comparative method, themes and subthemes were identified. These themes and subthemes will be considered within the social ecological framework to assess the breadth of individual, relationship, community, institutional, and government factors that affect provider's reporting behavior.

Results/Outcomes: The results of this assessment will be used to develop a clinical tool to assist in more effective reporting of child abuse reports for medical neglect to CPS.

MATERNAL & CHILD HEALTH

Name: Sherman, Marlena

Practicum Site: Boston Medical Center

Location: Mattapan, MA United States

Title: Research Assistant to Martha Vibbert, PhD (Executive Director of The SPARK Center and Director and Founder of Universal BabyTM)

Introduction: As a research assistant to Dr. Martha Vibbert, my principal role involved facilitating the implementation of Universal BabyTM (UB). Due to the lack of worldwide awareness of how parent-infant interactions influence early brain development, UB is a public health intervention to share current neuroscience about how caregivers living in high-adversity environments can nurture their infant's brain development. UB's goals are to help caregivers understand the connection between caregiver-infant relationships, brain development, and subsequent life outcomes and increase the practice of evidence-based parenting techniques. The purpose of this practicum was to perform administrative tasks and research support.

Methods: I worked with Dr. Vibbert: to develop a strategic plan for the UB project; to design and prepare a research protocol for Phase 1 (formative research); to develop a relationship with the site where the study will take place; and to complete an IRB application necessary for beginning Phase 1.

Results/Outcomes: Dr. Vibbert will use the approved IRB application and a relationship with the study site to carry out Phase 1.

Name: Wagner, Kimberly

Practicum Site: Cincinnati Children's Hospital

Location: Cincinnati, OH United States

Title: Student Researcher at Cincinnati Children's Hospital Pediatric Gynecology Unit

Introduction: In the Pediatric and Adolescent Gynecology Department, the medical staff is dedicated to improving patient health, satisfaction, and confidence in regards to gynecological outcomes through clinical visits, surgical procedures, and research projects. I assisted in this overarching goal by working on three different research studies. The first study measures sexual and pregnancy outcomes in female patients diagnosed with anorectal malformations (ARMs). The second study investigates specific surgical outcomes linked to the discovery of adnexal masses from the study of abdominal ultrasounds. The third study measures patient satisfaction associated with intrauterine devices (IUDs) in the female adolescent population. The purpose of this practicum was to help the department with their research endeavors because the majority of their workdays are spent in the operating room and clinic.

Methods: I worked with the principle investigator(s): 1) to recruit patients for the ongoing ARMs survey study; 2) to create databases and collect patient information for both the ARMs and adnexal masses research studies; and 3) to complete and alter the IRB application for the IUD study due to requested changes and committee concerns.

Results/Projected Outcomes: The primary investigators will use the two databases, recruited ARMs patients, and completed IRB application to ensure the future completion of these three projects.

Name: Wolfe, Audrey

Practicum Site: Children's Hospital Boston

Location: Boston, MA United States

Title: CIRCLES Research Trainee

Introduction: The CIRCLES Study at Boston Children's Hospital is a collaborative study with the hospital's Developmental Medicine Center and Boston Public Schools. The CIRCLES Study is evaluating the feasibility of using the CIRCLES curriculum as a school-based program to teach healthy social relationships to children with developmental disabilities. The CIRCLES curriculum is being piloted at several BPS schools and the results of this study will inform recommendations to adopt or not adopt the curriculum within additional BPS schools.

Methods: Over the course of my practicum, I participated in all aspects of the CIRCLES Study. I supported study participation and retention by contacting and recruiting eligible participants, obtaining consent, and managing the recruitment log and enrollment numbers. I also participated in data collection and analysis. What-if Situations Tests (WIST) and Children's Knowledge of Abuse Questionnaires (CKAQ) were administered to students from one BPS high school receiving a pilot of the CIRCLES curriculum. The students were given these tests several times over the course of the Spring 2014 semester while they received the curriculum.

Results/Outcomes: Although the study is ongoing and will not be complete until Summer 2014, I was able to analyze data from baseline WIST and CKAQs. Baseline data showed that the students' knowledge, regardless of age and other demographic characteristics, were similar at the start of the study. The research team expects students' scores to improve after they receive the CIRCLES curriculum, proving that the CIRCLES curriculum is effective in teaching healthy social relationships to children with developmental disabilities.

MATERNAL & CHILD HEALTH

Name: Wong, Tiffany
Practicum Site: Wang-YMCA
Location: Boston, MA United States
Title: Teen Programs Coordinator

Introduction: My role as the Teen Coordinator at the Wang YMCA is to develop and maintain programs such as the Ebalance program that aims to balance the school, homework, extra-curricular activity life with healthy exercise and eating habits for high school students.

Methods: The Ebalance Program involves outreach to high school students in various high schools in the greater Boston area. The program lasts three months, and involves 12 male and 12 female high school students. The students must fill out a goal sheet on what they wish to learn in terms of health and wellness with their college mentor that they are paired with. The mentors and I collectively review and discuss the goals of the students, and plan guided discussions on body image and what “healthy” means to the students over the course of the 3 month program. The program, although rigid in certain topics of discussion is overall very flexible and strives to give each student the support and guidance they need as individuals.

Results/Projected Outcomes: High school adolescents who have left the program express greater knowledge and understanding on body types, healthy eating habits, and the effects of excessive dieting and exercising.

Name: Wong, Tiffany
Practicum Site: Asian American Civic Association
Location: Boston, MA United States
Title: Asian American Civic Association Volunteer

Introduction: My role in the Asian American Civic Association (AACA) was to support the AmeriCorps Youth Leadership Coordinator in creating and implementing a Mentoring program partnering High School students with local Elementary school children. The Youth Leadership branch seeks to empower youth and give you the tools necessary to be successful in college.

Methods: A college fair was created and implemented early in October to help high school students meet with colleges in a smaller more intimate setting. Mandarin and Cantonese translators were also present for family members that needed them. This served to help high school students and their parents begin or continue a dialogue on colleges and help families think about the future. The Mentor and Me (M&M) program met every Sunday. The agenda for each session was created by me and gone over with my supervisor. Together we tried to create a creative program for both the elementary school students and high school students. The program this year was largely theatre based. The idea was to get the elementary school students to think more creatively, think about community issues, and learn how to express themselves through writing and acting. The high school students learned leadership skills while interacting with their peers and the elementary school students in individual and group settings.

Results/Projected Outcomes: At the end of the M&M Program, a play is produced for the participants’ family members and community.

SOCIAL & BEHAVIORAL SCIENCES

Name: Afroz, Ahmer
Practicum Site: Brookline Department of Public Health
Location: Brookline, MA United States
Title: Youth Substance Abuse and Violence Prevention Intern

Introduction: The division of Youth Substance Abuse and Violence Prevention of the Brookline Department of Public Health aims to engage the youth of Brookline by educating them about various relevant health topics. The program achieves these goals through a peer education model applied to a Peer Leadership course offered at Brookline High School. The role of the peer leaders is to create and disperse educational programs and mass media campaigns throughout Brookline High School and surrounding middle schools. The purpose of this practicum was to assist in the implementation course.

Methods: Practicum activities included: 1) co-instruct the peer leadership course educating peer leaders about topics of relevance within the community and possible intervention methods 2) assist students in the creation of campaigns and educational programs presented by the peer leaders on teen dating violence, depression, bullying, and substance use; 3) develop formative assessment interview questions that will be asked of LGBTQ youth to identify key issues that will inform the creation of programs and materials for parenting issues if they have a child who identifies as LGBTQ.

Results/Outcomes: The short-term gains are to enable school-aged youth to make health protecting decisions. Personally, I acquired competencies needed to develop intervention campaigns targeted at high-risk groups. Additionally, I acquired skills in developing and conducting informational interviews.

Name: Baudin, Vicky
Practicum Site: Boston Medical Center
Location: Boston, MA United States
Title: GEMS Study/Research Assistant

Introduction: The Girls Early Maturation Study - GEMS - (Dr. Renee Boynton-Jarrett, PI), based at Boston Medical Center, aims to better understand the ways that African American girls grow and mature. Quantitative and qualitative methods are employed to assess multiple dimensions and factors (e.g., community influences, chronic stressors, etc.) that influence physical health and mental health status. Physical, psychosocial and other measures are collected in addition to biomarkers obtained from blood, hair and saliva samples. The purpose of this practicum was to serve as a study research assistant.

Methods: Practicum activities included: 1) participate in study protocol training; 2) actively recruit patients in the waiting rooms and during appointments in the pediatric, eye, endocrinology, surgical, and specialty clinics; 3) collect data via interview, hair and saliva samples; 4) Introduction to database development and maintenance strategies for longitudinal follow-up for participants; distribution of gift certificates to participants as a gesture to show appreciation for their participation in the study.

Results: Study implementation skills including recruitment strategies and qualitative data collection regarding sensitive issues related to mental health history were acquired. In addition, a detailed policy brief that provides information on the relationship between stress and early - maturation and the potential social, political, and clinical implications of the GEMS study was written.

Name: Canfield, Julia
Practicum Site: Bisexual Resource Center
Location: Boston, MA United States
Title: Intern

Introduction: The Bisexual Resource Center (BRC), located in Boston and the oldest national bisexual organization in the United States, raises awareness about bisexuality and the several physical and mental health disparities experienced by bisexuals differently or disproportionately compared to their gay, lesbian, and heterosexual counterparts. The BRC also provides bisexual-specific programs, resources and support to the bisexual community. The purpose of this practicum was to develop two topical health-related brochures (mental health and sexual health) and design/implement a social media campaign about bisexual health disparities.

Methods: Activities included: 1) collect data and reputable information to inform content for two brochures; 2) create a messaging 'storyboard' for future communications planning; 3) create Facebook and Twitter posts on four topic areas: Mental Health and Biphobia, Sexual Health and Safer Sex, Nutrition and Physical Activity, and Sexual Violence and Intimate Partner Violence; 4) draft a newsletter article about the campaign for a national newsletter tailored to bisexual women; and 5) author a press release, which was sent to several online media outlets.

Results/Projected Outcomes: The social media campaign has been implemented though evaluation analysis is not yet complete. The brochures have been partially disseminated. Both contribute to filling crucial gaps in bisexual-specific programming and resources. They increase awareness about health disparities within the bisexual community, disparities the general public and LGBT community traditionally have not been cognizant of.

SOCIAL & BEHAVIORAL SCIENCES

Name: Cho, Margaret

Practicum Site: Boston University Center for Future Technologies in Cancer Care

Location: Boston, MA United States

Title: A clinical needs assessment on barriers to cancer screening in the primary care setting

Introduction: The Center for Future Technologies in Cancer Care focuses on the identification, prototyping and early clinical assessment of innovative point-of-care technologies for the screening, diagnosis, treatment and monitoring of cancers. The purpose of this practicum was to assist identify needs and barriers to cancer screening that occur in the primary care setting. This will better enable engineers to create point-of-care technologies that provide meaningful impacts that complements a physician's workflow and increases ease/access/convenience for patients.

Methods: Activities included: 1) a thorough literature review including gathering cancer statistics through MassChip, SEER data, and hospital reports, 2) creating a preliminary report of findings, 3) researching best practices, interviewing physicians, and meeting with experts to create an online questionnaire, 4) contacting outlets of distribution, and 5) IRB preparation and submission.

Results/Outcomes: An online questionnaire, utilizing the information extracted from stakeholder and expert interviews, was developed. An IRB application was approved, allowing for the Center to launch the primary care physician survey. The Center will then collect, analyze, and summarize this data in a final report that will inform its biomedical engineers.

Name: Edgar, Brittany

Practicum Site: Boston University School of Public Health

Location: Boston, MA United States

Title: Research Assistant

Introduction: Although pornography use is prevalent among U.S. youth, few studies have examined the effects of youth pornography exposure on psychosexual development and negative health behaviors. The impact on economically disadvantaged, urban adolescents has received even less attention. As pornography becomes increasingly violent and degrading, new research must explore how exposure to hard-core pornography influences youth sexuality and risk behaviors. The XXX Study aims to investigate frequency and reasons for pornography usage, its perceived influence on sexual behaviors, and associations with drug, alcohol or non-condom-use among a sample of 80 adolescents.

Methods: My role as one of the team research assistants was to approach, screen and enroll eligible 16- and 17-year-old subjects who presented to the pediatric emergency department at Boston Medical Center, which serves a low-income population. Recruited subjects completed a 20-30 minute quantitative survey to assess pornography exposure, sexual activities, substance use and dating violence victimization.

Results/Outcomes: Data from this study will help public health professionals ameliorate quantitative assessment tools that can provide insight into the impact of pornography on adolescent health, and promote development of interventions to mitigate potential harm of exposure. Preliminary analysis based on the first 50 surveys indicated that 58% of youth reported having seen something in porn they subsequently tried out in real life, and males ranked pornography the highest when asked to rank a number of items in terms of where they learned the most about sex. Study results can be used to determine how to address pornography exposure in sex education programs.

Name: Gallant, Colin

Practicum Site: Brookline Department of Public Health

Location: Brookline, MA United States

Title: Youth Violence and Substance Abuse Prevention Intern

Introduction: The Brookline Department of Public Health, through their Office of Teen Substance Abuse and Violence Prevention, aims to reach and inform high school students about a myriad of health related topics specific to teens. This is accomplished via the implementation of a peer leadership class based on a 'train-the-trainer' model offered at Brookline High School. Student participants in this course develop and deliver presentations for local middle schools that focus on bullying, stress, and depression. Student presentations and campaigns are also delivered to their age-level peers within the high school itself; focusing on stress, depression and teen dating violence.

Methods: Practicum activities included: 1) co-teaching peer leadership classes in order for them to become more knowledgeable on their health subject of interest; 2) offer support to students who participate in this peer education model; 3) ensure that student-developed approaches match with social and behavioral theory in order to effectively engagement their target audience and; 4) co-develop social media campaigns, panel discussions, and assemblies co-facilitated by peer leaders.

Results/Projected Outcomes: The intended long-term outcome of this program is to reduce unhealthy behaviors and improve health among all Brookline teens. However, a more immediate impact is the success this program has achieved in the positive development of the peer leaders. It is anticipated that these individuals will continue to make positive contributions to public health.

SOCIAL & BEHAVIORAL SCIENCES

Name: Garrey, Sascha
Practicum Site: WBUR
Location: Boston, MA United States
Title: WBUR CommonHealth Intern

Introduction: WBUR is Boston's National Public Radio news station. Over the past decade it has developed an increasingly prevalent online presence with publications that have obtained national popularity such as their CommonHealth blog, where I conducted my practicum in the summer of 2013. The CommonHealth blog exists to demystify and raise awareness of health policy, health science and other health-related topics by engaging lay-audiences through written and multimedia articles on timely issues in the fields of public health and medicine. The purpose of my practicum at CommonHealth was to cultivate and improve my public health communications skills by working as a writer and reporter for the blog.

Methods: Practicum activities included writing approximately 20 articles on a variety of topics including the following: 1) The power social media has as a source for health behavior data 2) How the ACA was likely to affect residents of Massachusetts 3) National trends of keeping kids un-vaccinated correlating with a dip below herd immunity in several states. Information for my articles was obtained by interviewing experts, attending town hall meetings, researching public records at the Massachusetts State House and reporting on breaking health news or events.

Results/Outcomes: These activities expanded my understanding of the different sides and perspectives reported in health communication, increased my abilities as a public health reporter, reinforced the importance of active listening when conducting research and taught me how to communicate about health topics in ways that are understandable to lay-audiences.

Name: Greco, Jeremy
Practicum Site: Harvard School of Public Health
Location: Boston, MA United States
Title: Project REACH-Out of School Time & Healthy Beverages

Introduction: The Boston REACH Obesity and Hypertension Demonstration Project (REACH Project) aims to develop and implement sustainable strategies that reduce obesity and hypertension, and decrease health inequities. The evaluation will focus on assessing the impact of place-based interventions in the five REACH neighborhoods (East Boston, Mattapan, Roxbury, Dorchester, and Hyde Park). The purpose of this practicum was to assist with two evaluation sub-topics within the REACH project: the Out-of-school time (OST) evaluation initiative and Healthy Beverages Initiative.

Methods: For the REACH evaluation, we compared evidence for change in key outcome variables in the intervention area versus comparison areas (the rest of Boston). The Out-of-school time initiative evaluation examined the impact of a strategy to promote healthy foods/beverages, and physical activity in out-of-school time, for programs in the REACH project area. For this evaluation, "action plans" were administered to REACH programs; these action plans evaluated goals related to nutrition, physical activity, and sedentary behaviors. Additionally, we used "practice assessments" to gather data on current physical activity, and nutritional practices of each organization. The "Healthy Beverages" initiative evaluation assessed the impact of the REACH intervention in an effort to promote healthy beverages. Grocery stores were assessed on whether or not changes in healthy beverage vending and retail sales strategy occurred.

Results/Outcomes: The evaluation of the REACH intervention program remains incomplete and is still in process. Evaluation data on program process and immediate outcomes have not yet been compiled. When completed, the results will determine the efficacy of the REACH intervention.

Name: James, Therence
Practicum Site: Boston Medical Center
Location: Boston, MA United States
Title: Research Assistant

Introduction: Project RED (Re-Engineered Discharge), a research group at Boston University Medical Center, constructs and tests strategies to improve the hospital discharge process. The primary study objective is to better understand what happens to patients as they are leaving the hospital, as well as what could have been done better or different to keep them from returning. This is done through the use of a questionnaire that gauges how patients feel about their readmission, and the various factors including social determinants, that could potentially lead to that readmission, referred to as the "Patient Readmission Evaluation Tool" (PRET). The purpose of this practicum was to assist in the implementation and data management of this tool.

Methods: Practicum activities included assisting the research coordinator to 1) develop the recruitment protocol for the research study; 2) conduct screenings for participant eligibility; 3) assist in the training of oncoming research assistants regarding the recruitment, data entry, and management protocols; 4) recruit, enroll, and administer interviews of study participants; 5) complete the necessary IRB quizzes and protocols necessary to work on the study; and 6) assess any trends in patient reports of what contributed to their readmission.

Results/Outcomes: A comprehensive recruitment protocol document; screened over 400 patients; a coding system for data entry; recruitment is ongoing but thus far over 30 patients have been recruited and interviewed; completed forms necessary for working with human subjects; assisted in the training of 3 research assistants.

SOCIAL & BEHAVIORAL SCIENCES

Name: Knowlton, Janelle
Practicum Site: Boston Medical Center
Location: Boston, MA United States
Title: Care Manager & Project Assistant

Introduction: Attention Deficit Hyperactivity Disorder (ADHD) is associated with poor academic achievement and higher unemployment rates in adulthood. The proposed Project Solve ADHD Care Management Study will randomly compare two alternative ways to provide children diagnosed with ADHD effective clinical services and care management that increase ability to succeed. The purpose of this practicum was to assist with the study as an ADHD care manager.

Methods: Practicum activities included: 1) collect information from parents regarding their child's ADHD symptoms, school history, and medical history; 2) screen parents utilizing the Vanderbilt Assessment Scale for ADD/ADHD; 3) conduct chart reviews to identify factors related to ADHD; 4) create professional memo that communicated information that could be used to formulate treatment recommendations to a panel of childhood medical experts; and 5) followed up with the families to re-evaluate progress after services or medications have been dispersed.

Results/Projected Outcomes: This practicum experience provided insight into the challenges associated with diagnosing and treating ADHD. Through fast-track services delivered by the ADHD Care Management Program, children who would potentially go undiagnosed are given an opportunity to be evaluated and receive a trial of care that could positively affect their life trajectory. It also increased my professional skills in case management, collection/dissemination of patient information, and research methods and provides an opportunity to present an analysis of a subset of study data.

Name: Los, Cristina
Practicum Site: Mass in Motion: Melrose/Wakefield
Location: Melrose, MA United States
Title: Mass in Motion: Creating Environmental Change to Promote Healthy Lifestyles

Introduction: The Mass in Motion initiative helps families across Massachusetts eat better and move more. Mass in Motion, Melrose/Wakefield has been working to promote health and wellness activities within their communities. Three initiatives that directly impact the community are the Healthy Dining and Corner Store initiatives which help bring healthy food to families, and the Safe Routes to School project which encourages families to walk and bike to school. The purpose of this practicum was to encourage environmental change within the two communities in order to promote a more healthy and active lifestyle.

Methods: Practicum activities included: 1) recruiting local dining establishments and corner stores to work with Mass in Motion to help bring more healthy food options to their customers; 2) providing support to previously recruited dining establishments and corner stores; and 3) partnering with the Safe Routes to School program to administer a survey to elementary and middle schools in both communities to assess how children were getting to school.

Results/Outcomes: Through the Healthy Dining and Corner Store initiative, 8 corner stores and 7 restaurants within both communities now offer healthier options. The Safe Routes to School survey results were compiled and distributed to key community stakeholders and participating schools. Each school will be offered access to free bicycle and pedestrian trainings, and encouraged to participate in the Massachusetts Walk to School Day. Select schools with high response rates will be contacted to encourage further programming to increase the number of students who walk and bike to school.

Name: Loscalzo, Monica
Practicum Site: Tufts University, Health Service
Location: Medford, MA United States
Title: Tufts University Sexual Assault Prevention intern

Introduction: The Tufts University Department of Alcohol and Health Education provides prevention education to the campus community about alcohol, sexual assault, nutrition, and other wellness topics. The focus of this practicum was to assist with the sexual assault prevention and education component which promotes healthy norms surrounding sexual violence, such as encouraging bystander intervention, and supports victims of sexual assault with their medical, emotional, and academic needs.

Methods: Practicum activities included: 1) identify and update online resources provided to survivors of sexual assault and intimate partner violence; 2) review other web resources and revise this site to be more user friendly, with up-to-date resources and evidence-based practices, as well as use survivor-affirming language; 3) contribute to Sexual Assault Awareness Month activities that promoted events on campus that increase students' awareness.

Results/Outcomes: The website was reorganized and updated. It is currently under review and pending approval by the University administration; it is expected to be widely distributed in Fall 2014.

SOCIAL & BEHAVIORAL SCIENCES

Name: Martin, Lisa

Practicum Site: New York City Department of Health and Mental Hygiene, Cardiovascular Disease Prevention and Control Program

Location: Long Island City, NY United States

Title: Nutrition Policy Internship

Introduction: The Healthy Venues Program in the Healthy Eating Active Living Unit at the NYC Department of Health & Mental Hygiene is working on innovative ways to address the food environment in order to improve the cardiovascular health of New Yorkers. The NYC Food Standards, which are consistent with USDA Dietary Guidelines for Americans and Institute of Medicine guidelines for a healthy diet, use progressive strategies to make healthy foods easily available. The Standards apply to snacks and meals served by City Agencies and contractors. This practicum supported the NYC Food Standards and the Healthy Hospital Food Initiative (HHFI), an unprecedented voluntary program that promotes healthier food choices in NYC hospitals. Participating hospitals voluntarily make healthy choices readily available for staff, patients and visitors in cafeterias, beverage vending machines, food vending machines, and patient meals.

Methods: In support of the HHFI, I conducted relevant literature reviews, updated and reformatted the healthy snack database, assisted with on-site hospital cafeteria and vending machine assessments, and will assist with the administration of the Healthy Hospital Food Procurement Symposium.

Results/Projected Outcomes: The literature reviews will provide information to help guide future efforts made by the Healthy Venues Program. The cafeteria and vending assessments will help to ensure that HHFI participants continue to comply with the standards, and the updated healthy snack database will provide a user-friendly system to show detailed information about compliant and non-compliant snack items.

Name: Shah, Disha

Practicum Site: Boston University School of Public Health

Location: Boston, MA United States

Title: Clinical Research Assistant

Introduction: The Oncogrid Study, based at Boston University School of Public Health, is a cluster randomized trial to compare the effectiveness of proposed mHealth solution of oral cancer screening to current standard of care in poor resource settings in rural India. Current screening and treatment programs are not optimized to diagnose, treat and cure most patients early. Most Indian patients live in remote, rural communities and are diagnosed only when the cancer has progressed and is difficult to treat. The primary focus of my practicum was to identify and explore methodologies that have the potential to achieve sustainable solutions that detect oral cancer at an early stage.

Methods: Practicum activities included: 1) apply epidemiological skills to collaboratively design study protocols; 2) assist uniform standards for the way each participant will receive treatment which will in turn enable researchers to combine and analyze data; 3) prepare standard implementation procedures and training manuals for participants; and 4) generate randomization strategy for the study intervention and control groups.

Results/Outcomes: Increased professional competencies regarding how to design study protocols, randomization procedures and implementation strategies that reduce potential threats to validity.

Name: Stamatakos, Korene

Practicum Site: Cambridge Public Health Department

Location: Cambridge, MA United States

Title: Implementing a Domestic Violence Policy in the Workplace

Introduction: The Cambridge Public Health Department, a part of the Cambridge Health Alliance (CHA), has implemented a workplace domestic violence policy and is currently working with the City of Cambridge to do the same. An implementation evaluation is currently underway to better understand what factors and processes most enable adoption. An outcome evaluation aims to determine what changes occur once the policy is implemented.

Methods: Practicum activities included: 1) assist the evaluation team to create a logic model for the policy; 2) conduct literature searches on dissemination, workplace policies, and domestic violence interventions in order to discover implementation best practices; 3) conduct an informal focus group with staff implementing the policy to determine what knowledge, attitudes, expectations, and additional support implementation; 4) assist in the creation of an action plan for implementation; and 5) identify performance and outcome evaluation tools for measurement.

Results/Projected Outcomes: The literature search provided information on models for dissemination including one that will be used to assist with the creation of an action plan. The logic model mapped out the changes expected and will inform future evaluations. If there are additional resources staff needs to successfully implement the policy, we hope to find those out through focus group discussions. The goal is to leave the team with the tools and information necessary to continue evaluation of the policy.

SOCIAL & BEHAVIORAL SCIENCES

Name: Stropp, Travis

Practicum Site: Boston Healthcare for the Homeless Program

Location: Boston, MA United States

Title: Co-investigator, BHCHP Naloxone Program Field Action Report

Introduction: Boston Health Care for the Homeless Program (BHCHP) is an innovative community health center that provides comprehensive respite medical care and social services to homeless individuals in Greater Boston. The BHCHP Drug Overdose Task Force released recommendations on August 30, 2012 that addressed five areas of consideration to improve medical care delivered to a unique patient population of homeless individuals. One area involved reviewing issues related to the outpatient prescribing of intranasal naloxone for mitigating the risk of opioid overdose deaths. The purpose of this retrospective study is to evaluate the implementation of the intranasal naloxone prescribing program and to describe the experience at a community health center.

Methods: This practicum was a continuing compilation of data and completion of the Field Action Report manuscript draft. During this process, edits from several co-authors were incorporated into the draft, and the BHCHP Electronic Medical Record (EMR) data fields were refined for accuracy and consistency with pharmacy data in order to gain a clearer perspective of the quantitative impact of this prescribing program.

Results/Outcomes: Implementation of this prescribing program as part of the standard of care for at-risk patients is a novel idea at a community health center and a positive step toward decreasing opioid overdose deaths in Boston. Not only will this study serve to disseminate information to the medical community at-large, but it has emphasized areas for improvement in the design of EMR querying programs and data analysis at BHCHP.

Name: Thirugnanasampanthan, Janagi

Practicum Site: Boston Public Health Commission

Location: Boston, MA United States

Title: Intern at Boston Public Health Commission, Early Childhood Mental Health Toolkit

Introduction: The pediatric medical home is an innovative approach to pediatric primary and mental health care that aims to improve the community's capacity to support children with social and emotional needs. Boston Public Health Commission (BPHC) created an Early Childhood Mental Health Toolkit that aids pediatric medical homes to establish the necessary components for prevention in mental health. The purpose of this practicum was to develop a Community Integration section of this Toolkit explaining that fostering relationships with community agencies is a critical component needed to ensure that individualized, comprehensive, and coordinated treatment regimens are in place. I also assisted in developing these relationships.

Methods: Specific responsibilities included: 1) developing a comprehensive list of community partner resources for caregivers; 2) compiling outreach/education materials and lessons learned in partnering with community services from multiple demonstration sites; 3) creating an interactive visual aid describing services accessible through medical homes and outlining how to coordinate direct services and structure communication systems in building relationships with community partners; and 4) drafting a compelling Community Integration introduction reflecting literature that supports the need for integration of mental health services in pediatric medical homes.

Results/Outcomes: The community partner resources, outreach/education materials and lessons learned in partnering with community services, interactive visual aid on medical home services, and Community Integration introduction have all been incorporated into the Toolkit. Future steps will include implementing this Toolkit in pediatric medical homes, monitoring and evaluating Toolkit feasibility, and carrying out coordination of community agencies with at risk families in Boston.

Name: Truong, Kim

Practicum Site: Boston Public Health Commission

Location: Boston, MA United States

Title: Environmental Assessment Report Intern

Introduction: The Boston Child's Health Study is a major, three-part study of child health being conducted in Boston under the joint leadership of the Boston Public Health Commission and Boston Children's Hospital. The study comprises of a phone survey of Boston's parents, an environmental assessment of Boston's neighborhood, and an analysis of Medicaid claims data. The focus of this practicum is an environmental assessment of Boston, using maps to analyze Boston neighborhoods and their impacts on child health.

Methods: The activities of this practicum include: 1) conducting literature reviews on the environment and child health issues, 2) drafting content for the environmental assessment report that will be used to provide context to data from multiple sources, including primary data collected from earlier surveys, 3) collecting, cleaning, and compiling data at the geographic level, 4) reviewing and editing drafts of the report, 5) creating slides for presentation of data from the report, 6) attending project meetings, and 7) assisting on additional projects as they emerge.

Results/Outcomes: The final report, Health of Boston's Children: Child Health Assessment Mapping Project will provide insight into Boston environments and shed light on gaps in knowledge of Boston children's health. It will be published in Summer 2014.

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