

Boston University School of Public Health

Student Practicum Abstracts

Summer 2013



BUSPH STUDENT PRACTICA SUMMER 2013

The BUSPH Office of Public Health Practice is pleased to present the Summer2013 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 summer practicum students?

38 Cities and Towns

6 States across the U.S.

10 Countries

Costa Rica

Ethiopia

Ghana

India

Kenya

Liberia

Namibia

South Africa

Tanzania

Zambia

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Name: Mengfan Cheng

Practicum Site: Beth Israel Deaconess Medical Center—Community Benefits Department

Location: Boston, MA

Title: Needs Assessment Intern

Introduction: Beth Israel Deaconess Medical Center (BIDMC) is conducting a community health needs assessment for its services area. The goal of this project is to identify the health needs of the population that BIDMC and its community health centers serve; address the key needs of each community/neighborhood; and conduct a strategic plan to improve the health and well-being of each community/neighborhood. The purpose of this practicum is to analyze the survey data (primary data) of the community health needs assessment and create fact sheets that highlight the key findings of the primary data as well as major differences between primary and secondary data (data found elsewhere, BRFSS 2010, U.S. FactFinder).

Methods: I am working directly with the Director of Department of Community Benefit of BIDMC to 1) manage the survey data, 2) review literature of food security/insecurity and calculate food insecurity rate for each community/neighborhood, 3) create cohort-stratified table of aggregated results for the survey data so the results can be compared between different cohorts, 4) conduct neighborhood fact sheet for each community health center that reflects the health status and quality of life of the population in the BIDMC's service area and make recommendation to the community health centers.

Results/Outcomes: The outcomes of this practicum include stratified table, a report of food security in Massachusetts and the neighborhood fact sheets for each community neighborhood (there are seven in total). They will work effectively for BIDMC when conducting the strategic plan to motivate and improve community health.

Name: Ekaterina Sadikova

Practicum Site: Boston Medical Center—Department of Family Medicine

Location: Boston, MA

Title: Data Analyst

Introduction: The Department of Family Medicine at Boston Medical Center has done extensive research to enhance the discharge process and improve rates of preventable 30-day rehospitalizations. Patients with depression are a particularly vulnerable group when it comes to self-management of care after discharge, exacerbated by poor access to mental health therapies necessary to regulate their mood and activation. Dr. Suzanne Mitchell and I launched a research study using the Boston Medical Center Clinical Data Warehouse to investigate the impact of depression therapy adherence rates on preventable early readmission rates in a cohort of patients diagnosed with depression between 01/2007 and 01/2013. Of particular interest to us was to assess the Massachusetts Health Reform as a potential catalyst in improving depression therapy adherence rates, and thus improving the risk of early readmission.

Methods: I worked with Dr. Mitchell to 1) obtain IRB approval for this investigation; 2) communicate with the Clinical Data Warehouse to obtain all pertinent data for the analysis; 3) compile the obtained medical record data into a clean, analyzable form; 4) perform the statistical analysis to determine factors associated with depression therapy adherence and early readmission; 5) summarize the results in a journal manuscript.

Results/Outcomes: Approved IRB protocol, thorough literature review of depression therapy adherence and factors associated with early preventable readmissions, analyzable SAS dataset with 9,251 observations (patients) and 2,224 variables (merged from 16 spreadsheets), draft of a journal manuscript summarizing the results of the analysis (in progress).

Name: Brian Saindon

Practicum Site: Beth Israel Deaconess Medical Center

Location: Boston, MA

Title: Research Student

Introduction: A previous study indicates that lactate and vasopressor use may predict mortality after cardiac arrest. To confirm previous results I performed a statistical analysis to predict post cardiac arrest discharge mortality using initial blood lactate levels and hypotension status.

Methods: To validate previous retrospective findings, we conducted a prospective observational study of all OHCA (age >18, non-traumatic etiology) patients presenting to the emergency department of a tertiary care center between June 2006 and July 2013. We utilized a logistic regression model using categorical lactate level and vasopressor status as predictors of out of hospital cardiac arrest mortality. Each patient was followed until death or hospital discharge.

Results/Outcomes: Patients who received vasopressors had significantly higher mortality rate (mortality rate of patients on vasopressors 69.41% v mortality rate of patients not on vasopressors 47.27% ; $p=0.0088$). Not adjusting for hypotensive status, higher lactate levels were associated with increased odds of death compared to lactate 5-10mmol/L as the reference group (lactate 5-10 mmol/L OR = 3.740, 95%CI: 1.741, 8.033, $p<0.001$; lactate ≥ 10 mmol/L OR = 35.70, 95%CI: 4.457, 285.968, $p<0.001$). Adjusting for hypotensive status, higher lactate levels were associated with increased odds of death compared to lactate 5-10mmol/L as the reference group (lactate 5-10 mmol/L OR = 3.378, 95%CI: 1.551, 7.357, $p=0.002$; lactate >10 mmol/L OR = 30.859, 95%CI: 3.818, 249.412, $p=0.0013$). When adjusting for lactate level there was no significant increase in odds of death for patients that were hypotensive compared to patients who were not hypotensive (OR=0.541, 95%CI: 0.250, 1.170, $p=0.1183$).

ENVIRONMENTAL HEALTH

Name: Douglas Cowles

Practicum Site: Burlington Board of Health

Location: Burlington, MA

Title: Analysis of the Content, Format, and Enforcement of Burlington's Hazardous Building Component Management Plan Policy

Introduction: Burlington created its Hazardous Building Component Management Plan policy in 1997 with the intent of protecting public health from releases of toxic chemicals and building components to the environment as they relate to building demolition and renovation activities. My practicum was to first research the complexity of the issue and to determine if alternative public policy approaches to the problem have been successfully implemented, and secondly to update the appearance, usability, and overall format of the checklist form that is utilized by contractors and property owners to comply with the policy.

Methods: Internet based research of publications, peer-reviewed articles, and governmental websites was performed to learn the complexity of the issue. Interviews with state and local governmental environmental health officials were conducted to gain prospective and experience on the topic and to comment on the approach that Burlington was employing.

Results/Outcomes: The form was designed to function as an electronic form (e-form) with editable text fields and yes / no style checkboxes rather than utilizing a conventional paper form. Other than the appearance and ease of use changes made to the checklist form, two additional provisions related to lead paint exposure have been added in how the BOH manages activities to structures built prior to 1979. The property owner of such a building will be required to either provide a confirmatory sampling report that all painted surfaces are free from lead based paint or will need to utilize a Massachusetts licensed lead-safe contractor for the proposed project.

Name: Alan Breaud
Practicum Site: Boston University School of Public Health—Department of Biostatistics
Location: Boston, MA
Title: Research Assistant

Introduction: A degenerative and progressive disease affecting the brain, Chronic Traumatic Encephalopathy (CTE) is found in individuals, athletes more commonly, with repeated brain trauma (symptomatic and asymptomatic concussions). The Center for the Study of Traumatic Encephalopathy (CSTE) at the Boston University School of Medicine, in collaboration with the Sports Legacy Institute, is focusing on various risk factors and genetics that accompany progression of the disease. The focus of my practicum included working with CTSE biostatistician Dr. Yorghos Tripodis looking at how former football players' concussions affect psychological outcomes.

Methods: I worked in helping perform statistical analyses for CSTE researchers. Additionally, I worked with SAS to generate descriptive statistics, determine correlations, perform linear regressions, and mixed linear regressions (Proc MIXED). Our first analyses sought to determine the appropriate definition of concussion in measuring BRIEF (Behavior Rating Inventory of Executive Function) outcomes through linear and mixed regressions. The second main question looked at how specific ApoE gene alleles play a role in the BTACT (Brief Test of Adult Cognition by Telephone) outcomes.

Results/Outcomes: Only the concussion count after a full definition of what a concussion entails, adjusting for education and age, was found to be strongly associated with BRIEF outcomes. This preliminary analysis indicates a full definition of a concussion should be given to participants of the CSTE study in order to best predict BRIEF outcomes. Additionally, our second analysis found ApoE does not modify outcomes of BTACT scores either on its own or interaction with a loss of consciousness.

Name: Tara Bylsma
Practicum Site: Massachusetts Public Health Association—Massachusetts Podiatric Medical Society
Location: Boston, MA
Title: Intern - Massachusetts Diabetes Education Program

Introduction: I worked with the Massachusetts Podiatric Medical Society (MPMS) to gather data for a pilot study run by the Massachusetts Diabetes Education Program (MDEP) and prepare a grant for further funding. The MDEP connects Podiatrists, Pharmacists, Optometrists, and Dentists (PPOD) with the aim of reducing the incidence of serious complications of type 2 diabetes. The MDEP is currently implementing a Diabetes Passport intervention, which aims to improve care coordination for diabetes patients by creating a concise summary of pertinent medical information for patients to share with their providers.

Methods: I created a survey to gather data from the provider participants in the pilot study of the MDEP Diabetes Passport program on adoption rates and opinions on the intervention's effectiveness and ease of use. However, I encountered difficulties in distributing the survey because the complete list of participating physicians had been lost. I distributed the survey to a partial list of participants to maximize our qualitative understanding, but this was also met with low response rates.

Results/Outcomes: I designed a new protocol for a case-crossover study of the Diabetes Passport Program. The proposed study aims to recruit roughly 250 patients through providers at 3-5 community clinics. The patient participants will receive Diabetes Passports and will be followed for 1 year. Afterwards, the patients' data will be compared to medical records for 2 years prior to the intervention in order to examine the effect of the intervention on care coordination and outcomes. I also wrote a grant to obtain funding to implement this trial.

Name: Susan Chung
Practicum Site: Boston Medical Center—Department of Family Medicine
Location: Boston, MA
Title: Integrative Medical Group Visits (IMGV) Practicum

Introduction: The number of individuals in the United States living with at least one chronic condition like pain, cardiovascular disease, diabetes, obesity, or depression is rising, contributing to the rise in health care spending. For patients of low socioeconomic/minority status, treatment options for chronic pain are often limited and temporary. Integrative Medicine Group Visits (IMGVs) are an innovation in care developed to respond to these issues by using a shared medical appointment model to deliver evidence-based complementary and alternative medicine (CAM) modalities and conventional medicine. The objective of this intervention is to demonstrate the feasibility and effectiveness of delivering care using the group visits model.

Methods: Patients completed questionnaires at baseline and eight weeks to assess pain, depression, anxiety, stress, and sleep quality. Biomarkers (e.g. cholesterol) were also recorded at these time points. I managed the dataset that included these variables. I created various frequency tables, and conducted paired t-test analyses using SAS to calculate p-values for changes between baseline and the end of the study. I also assisted with recruitment and survey administration.

Results/Outcomes: Among the 51 patients who completed the IMGV program, 64% of participants were African American, 24% unemployed, and 41% disabled. The average baseline pain score of 7.2 decreased to 6.4 ($p=0.02$) after eight weeks. Statistically significant improvements were seen in depression and sleep measures, as well. The average attendance rate was 65% across all groups. We concluded that our results will inform a larger, adequately powered study on IMGVs.

EPIDEMIOLOGY

Name: Emily Cohn

Practicum Site: Children's Hospital Boston—Healthmap

Location: Boston, MA

Title: HealthMap Internship

Introduction: West Nile Virus (WNV), first detected in the U.S in 1999, is currently without specific treatment or human vaccine. Severity of any disease season varies widely based on environmental factors. West Nile Virus (WNV) seasonal data in the United States for years 2011 and 2012 were examined using the HealthMap database. HealthMap is an online disease surveillance system affiliated with Boston Children's Hospital and Harvard University. Online reports of infectious disease outbreaks are collected and stored in HealthMap's database.

Methods: For the purposes of this study, a separate county-level WNV database was created from available data isolating the dates of first WNV positive mosquito vector and first report of human WNV case. Location and time-lapse data for insect and human infection were analyzed to explore any patterns or relationships.

Results/Outcomes: Results indicate that there were no statistically significant differences between states with at least three counties reporting in the mean number of days between first mosquito report and first human case. For states with at least five counties reporting, New York and California demonstrated significant difference in mean time-lapse between insect and human cases. On a national scale, available data for 2011 and 2012 were analyzed for mean time-lapse but no significant difference was found. Further investigation is required to interpret the results of this pilot study because the significance of the time period between first positive mosquitoes to first human case has yet to be determined. Questions also remain regarding surveillance routines across counties and states and disease reporting practices and trends.

Name: Brittany Deane

Practicum Site: Massachusetts Health and Relationships Project - MassHARP

Location: Boston, MA

Title: Research Assistant

Introduction: The Massachusetts Health and Relationships Project (MassHARP) seeks to understand the effects of long-term relationships on health decisions and outcomes. In order to investigate this, MassHARP observes married, cohabitating, gay, lesbian and straight couples of seven years or more. My practicum was mainly focused on recruiting participants through several different means. Other important tasks included listening to participant interviews, collecting demographic data and performing simple data analysis in order to further understand the study population.

Methods: This study mainly focused on conducting in-depth interviews with married straight, gay and lesbian couples between the ages of forty to sixty years old who have been together for at least seven years. Participants were interviewed and filled out questionnaires which included basic demographic data as well as questions pertaining to general health issues. For the practicum, participants were recruited using vital records data as well as tax information. Methods of analysis included review and transcription of recorded interviews, organization of demographic data and maintenance of already collected data.

Results/Outcomes: MassHARP is a continuing study, with participants still being recruited and interviews still being analyzed. My practicum provided the study with potential participants, organization of data and basic data analysis.

Name: Brian Donohue

Practicum Site: Massachusetts Department of Public Health

Location: Middleton, MA

Title: Preparation: The Key to Preventing Public Health Disaster. An overview of Emergency Dispensing Site Planning

Introduction: The objective of this project was to assist in the planning, coordination, and harmonization of materials for the town of Middleton, Massachusetts Emergency Site Dispensing Plan (ESDP). Utilizing comments from the Commonwealth of Massachusetts and Centers for Disease Control the Emergency Site Dispensing Plan is evaluated annually to ensure the plan can be enacted in a moment's notice to address public health emergencies. In order to ensure proper execution of the ESDP annual updates are necessary to allow for all primary and back up positions to be actively filled and fully trained on their specific role.

Methods: An assessment was performed relative to the necessary updates and potential shortcomings of the previous Emergency Site Dispensing Plan. Utilizing the previous year's ESDP, the intern worked to create an easily formatted and viewable version of the site dispensing plan organization chart to aid in the functionality of training and execution of the Emergency Site Dispensing Plan. In addition the intern is working on job responsibilities and contracts for each member of the dispensing plan.

Results/Outcomes: The intern formatted the incident command organization chart into a workable, editable format in Microsoft PowerPoint. In addition, a workable contact list, formatted in excel, was developed to allow quick email capabilities and a centralized location for this information.

Name: Haomo Du
Practicum Site: Tufts Medical Center—Cost Effectiveness Analysis Registry
Location: Boston, MA
Title: Intern at Tufts Center for Evaluation of Value and Risk in Health (CEVR)

Introduction: During summer 2013, I interned at the Center for the Evaluation of Value and Risk in Health (CEVR) at Tufts Medical Center. CEVR's mission is to analyze the benefits, risks, and costs of strategies to improve health and health care and to communicate findings to clinicians and policymakers. CEVR maintains a comprehensive database of cost-utility studies – the Cost-Effectiveness Analysis (CEA) Registry – an internationally renowned database of published medical literature that contains detailed information on over 3,400 studies published through 2012.

Methods: I reviewed over 90 cost-utility articles published in notable peer-reviewed journals. From these studies, I extracted data on the methods used, including the discount rate, time horizon, perspective, uncertainty, incremental cost-effectiveness ratios, and utility weights used to quantify health gain. These articles spanned a range of interventions, such as screening, vaccination, and pharmaceutical treatments. Through this review process and experience in Microsoft Excel, I gained familiarity with fundamental health economics methods, such as Markov modeling and sensitivity analysis. I also provided support on a project that analyzed the role of public input on Medicare National Coverage Determinations (NCDs). After gathering data on public comments for over 100 NCDs, I ran descriptive statistics and bivariate associations stratified by Medicare's coverage decision (i.e. coverage, coverage with restrictions, and noncoverage).

Results/Outcomes: The CEA Registry is periodically updated to reflect data from cost-utility analyses. CEVR will incorporate my work on the NCD public comments into a larger project of developing a predictive model to assess the factors that influence Medicare's coverage decisions for medical technologies.

Name: Chandrasekar Gopalakrishnan
Practicum Site: Boston Collaborative Drug Surveillance Program
Location: Boston, MA
Title: Metformin Use in Renal Impairment

Introduction: Metformin belongs to a class of drugs called biguanides and is the first-line drug of choice for the treatment of Type 2 diabetes especially in overweight and obese individuals. Metformin has long been thought to play a role in the pathogenesis of lactic acidosis when prescribed to patients with risk factors for the condition. Metformin associated lactic acidosis (MALA) is frequently used to describe the occurrence of lactic acidosis in patients taking the drug. Its use is thus contraindicated in patients with risk factors such as chronic kidney disease (CKD). However, recent studies show that Metformin may just be a coincidental factor in the occurrence of Lactic Acidosis and could still be of great value in patients with Type 2 Diabetes and concomitant CKD.

Methods: Conduct a systematic literature review to assess the usage and safety of Metformin in patients with renal impairment. Discuss the public health burden of CKD and propose recommendations to conduct an epidemiological study using the CPRD 2012 database. Analyze preliminary data using SAS 9.1.3.

Results/Outcomes: Lactic acidosis is an extremely rare occurrence in patients using Metformin. Guidelines regarding its use have to be reevaluated with growing evidence that its benefits outweigh the risks. Metformin could potentially decrease the cardiovascular risk associated with CKD and thereby produce better health outcomes in these patients. There is limited data showing its benefits in those with reduced renal function. We are currently identifying a cohort of Metformin users from the CPRD 2012 database to determine an appropriate study population to conduct a study.

Name: Praveen Hariharan
Practicum Site: Massachusetts General Hospital—Department of Emergency Medicine
Location: Boston, MA
Title: Research Fellow

Introduction: Electrocardiographic (ECG) changes may be seen in patients with pulmonary embolism (PE) who have associated right heart strain. Whether these ECG findings are predictive of short-term clinical adverse events after PE is less well known.

Methods: We prospectively enrolled a consecutive sample of patients diagnosed with acute PE in the Emergency Department from October 2008 to December 2011. Patients were eligible if they were ≥ 18 years old and had an imaging test confirming PE. We collected ECG's on all PE patients at the time of enrollment. ECG patterns were interpreted by the study investigators and scored according to clinical patterns. Our primary outcome was evidence of right heart strain on echocardiogram or CT pulmonary angiography (CTPA), or myocardial necrosis based on a troponin-t > 0.1 . We derived an ECG risk score, and compared this score to the performance of a previously published score.

Results/Outcomes: We enrolled 298 patients with PE. Of these, 147 (51%) were males, 261 (90%) were white. The mean age was 59 years. ECG data was available in 290 subjects. Right heart strain was noted in 146 (50%) subjects. On multivariate analysis, S wave in lead I (OR-2.0; 95% CI 1.1-3.5), tachycardia (OR-2.5; 95% CI 1.3-4.8) and T wave inversion in lead I-III (OR-4.7; 95% CI 1.7-13.2) were associated with right heart strain. Test characteristics for primary outcome with our ECG score (≥ 2 points): sensitivity 39% (95% CI: 31%-47%), specificity 84% (95% CI: 77%-90%), NPV 58% (95% CI: 51%-64%) and PPV 71% (95% CI: 60%-81%).

EPIDEMIOLOGY

Name: Megan Heffernan

Practicum Site: Massachusetts Department of Public Health—Local Health Interns

Location: Halifax, MA

Title: Community Health Assessment Intern

Introduction: In Halifax, I continued an ongoing community health assessment to gain insight into the opinions of residents and stakeholders regarding public health problems and possible solutions. As an intern, my goals were to continue collecting data, create a synthesized data set, interpret the findings and report finalized results.

Methods: There are three major components to this health assessment: general surveys administered to the public, community stakeholder interviews and youth-specific surveys given to elementary school teachers. First, I reviewed existing data and streamlined it into datasets. After slight alteration, I administered the general survey in person and through an online method, yielding a final sample of 107 participants. Finally, I conducted three additional interviews and analyzed both the qualitative and quantitative data.

Results/Outcomes: The major themes from the stakeholder interviews concerning the root of public health problems in Halifax were budget limitations, lack of coordination, reluctance to change, and more education needed. Elementary school teachers identified poor diet and behavioral problems as the most prevalent issues in their classrooms, and suggested implementing programs addressing respect, healthy eating and appropriate behavior. Mosquito borne diseases (EEE/West Nile), Lyme disease and environmental health issues were reported as public health problems in Halifax by 78, 72 and 58 percent of participants, respectively. Despite several new cases of Hepatitis C each year, only 8% of participants reported this as a public health issue in Halifax.

Name: Elise Hoover

Practicum Site: Partners in Health

Location: Boston, MA

Title: RESIST-TB Intern

Introduction: Multi-drug resistant tuberculosis (MDR-TB) affects 4% of new and 20% of retreated tuberculosis cases, with over 80% of these undiagnosed. My practicum required coordination with various global actors to assess the impact of GeneXpert, a new innovative diagnostic platform for MDR-TB. GeneXpert is a faster and more efficient system that was endorsed by the WHO in 2010, which aims to increase identification of MDR-TB in clinical sites.

Methods: Through data collection, literature review and collaboration with WHO and Cepheid surveillance data, I have assessed, (1) module and cartridge sales, and (2) changes in MDR-TB incidence estimates in the 27 high-burden MDR-TB countries.

Results/Outcomes: RESIST-TB plans to continue this surveillance through 2015, and to ultimately make conclusions regarding how GeneXpert technology is used in each of the 27 high-burden MDR-TB countries. Early data suggests that programs in countries with high HIV prevalence appear to use GeneXpert to identify MDR-TB/HIV co-infected patients, including sites in South Africa and India. Others, including Nigeria and Pakistan, seem to focus on MDR-TB resulting from first-line treatment failure. However, detecting significant changes in incidence will require a longer period of surveillance that constituted my practicum. As an ecologic study, the expected increase in diagnosis of MDR-TB cannot reveal whether individual patients used the new technology versus the old. Yet ultimately, RESIST-TB will identify potential policy changes to target the populations most in need of the new GeneXpert technology for diagnosis of MDR-TB.

Name: Corey Joseph

Practicum Site: Millenium: The Takeda Oncology Company

Location: Cambridge, MA

Title: Pharmacovigilance Intern

Introduction: Millennium is a Cambridge-based pharmaceutical company that specializes in the development of chemotherapeutic agents for use in a wide array of malignancies. As an intern within the Pharmacovigilance and Risk Management department I was involved in several projects which can ultimately be categorized by two distinct themes: one, to ensure the safety of clinical trial participants via ad-hoc analyses of safety signals, and two, to further amplify a nascent inter-company initiative to begin conducting normal healthy volunteer studies (NHV) with chemotherapeutic agents in-development.

Methods: Safety signals are unexpected – or expected – adverse events that occur during the course of a clinical trial. Their frequency, intensity and detrimental effects are deterministic of whether a compound can be used as an oncologic in humans. I was responsible for providing background incidence and prevalence rates of the signals in populations similar to the ones being studied in the trial. Facilitation of the push to begin conducting NHVs was achieved through the creation of various documents regarding the methods and regulations taken into consideration when conducting an NHV with a cytotoxic agent.

Results/Outcomes: The prevalence and incidence rates I obtained were used in a number of analyses that initially indicate that the adverse events in question were unrelated to the compound being used. The guidance, slides and documents I created for the NHV initiative will be used to create a white paper and decision tree/algorithm to determine if a compound is a good candidate for an NHV.

Name: Pili Kamenju
Practicum Site: Fenway Community Health—Sidney Borum, Jr. Health Center
Location: Boston, MA
Title: Intern in LGBT Youth Health Research

Introduction: The aim of the study was to determine patterns between outcomes (STI diagnosis) and risk behaviors/social context for a population of men who have sex with men (MSM).

Methods: Information was gathered from health records of MSM who presented at the Sidney Borum Health Center between January, 2009 and June 30, 2010. I was responsible for redacting information from electronic patient health record charts; creating, managing and cleaning a database, and conducting some data analysis. Data were analysed using SAS version 9.3.

Results/Outcomes: A total of 78 patients were included in the analysis; majority 63 (82.1%) aged 18-24 years and 29 (37.7%) were White. More than half (51.3%) reported sometimes engaging in sex while using drugs or alcohol. At enrollment, 5 (6.41%) tested positive for gonococcal urine infection, 4 (5.1%) for rectal gonorrhoea, 1 (1.3%) for oropharyngeal gonorrhoea, 2 (2.6%) for syphilis, 1 (1.3%) for Chlamydia and 1 (1.3%) for HIV infection. Current use of club drugs was significantly associated with gonococcal urine infection (RR 9.7371, 95% CI 0.0220, 0.4806). Patients reporting ever being paid to have sex were 1.7 times as likely to test positive for gonorrhoea in urine compared with those who reported never being paid to have sex although the association was not statistically significant (95% CI 0.2106, 13.7216). Interventions targeting club drug use may be beneficial in reducing STI rates in this population. A larger sample size is needed to provide more precise results and adequately represent the target population.

Name: Andrew Lai
Practicum Site: El Programa Salud y Trabajo para América Central (SALTRA)
Location: Heredia, Costa Rica
Title: Heat Stress in Sugar Cane Workers: Implications for Chronic Kidney Disease of Unknown Origin in Central America

Introduction: Chronic Kidney Disease (CKD), an illness usually found in older patients with hypertension, diabetes, and obesity, has taken the lives of healthy, young men in a slow epidemic across rural Central America and Mexico, dating back to the 1970s. Last November, fifty experts from fifteen countries met in Costa Rica to establish international research collaboration aimed to identify the causal origins and cofactors of this mysterious epidemic. This practicum provided assistance in ongoing regional efforts that evaluate the effects of heat stress on sugar cane workers, in addition to the formation of the Consortium for the Epidemic of Nephropathy in Central America and Mexico (CENCAM).

Methods: I worked with university researchers, who conducted a three-year case-control study of sugar cane workers. I created several databases that contain urine, weight, and dehydration data from recent field study. Moreover, I oversaw the election of the CENCAM Board of Directors, and created a digital library of popular literature related to the CKD epidemic.

Results/Outcomes: Because the current study data is confidential until publication, the only reportable result from the field study is that dehydration and chronic heat stress have important implications on the chronic kidney disease epidemic. From the CENCAM elections, a new six-member Board of Directors has been installed, which includes Dr. Daniel Brooks from the Boston University School of Public Health Department of Epidemiology. Finally, with the new digital library, researchers and interested individuals worldwide will have access to a centralized wealth of information about this regionally devastating disease.

Name: Jiahe Li
Practicum Site: CVS Caremark
Location: Boston, MA
Title: Consultant in Enterprise Analytics

Introduction: CVS Caremark Corporation is an American drug retailing company with a U.S. pharmacy chain. It has three operating segments: CVS/ pharmacy (the retail pharmacy chain), Caremark Pharmacy Services, and Minute Clinic. Caremark Pharmacy Services is one of the nation's leading pharmacy benefit management (PBM) companies, which provides comprehensive prescription benefit management services to over 2,000 health plans. My practicum with the Enterprise Analytics team in Caremark is to analyze and identify the right channel contacting strategy for our PBM members to change their prescription refill activities.

Methods: I utilize marketing analysis tools including SQL, SAS and Excel to gather and examine data from Caremark's database and to conduct channel analysis for our 'Retail to Mail' (RtM) product, which aims at converting member prescription refill behavior from 30 day at retail to 90 day at mail. The practicum also involves performing health research to increase drug adherence, collecting datasets to create an ongoing data warehouse project in our Enterprise Analytics team, and coordinating in the 'RtM Campaign' operations.

Results/Outcomes: The channel analysis is important for the marketing team to understand the role of each channel in RtM, target distinct members with the optimal channels, integrate the strategy with other models and make final business decisions with a fiscal perspective. The projected outcomes include identifying the contribution of each contacting channel such as live phone call or mail in member conversion, examining member differences in various channel strategies and recommending the optimal channel plan for future RtM program.

EPIDEMIOLOGY

Name: Vania Lin

Practicum Site: Boston Medical Center—Department of Pediatrics

Location: Boston, MA

Title: Prenatal Tobacco Smoke Exposure and Cognitive and Behavioral Outcomes (PEP Research Project)

Introduction: The purpose of the practicum was to assist with the preparation of a manuscript for publication presenting results from the assessment of young adult offspring from a longitudinal prospective cohort assembled shortly after birth. The study continues to examine the effects of prenatal exposure to substances, including tobacco, and cognitive and behavioral outcomes among offspring.

Methods: Literature reviews were conducted to gather background information for the interpretation of study results. Topics of interest included correlations between maternal self-reported tobacco use and maternal and child cotinine levels, comparison of cotinine measurement media, and associations between prenatal tobacco exposure (PTE), environmental tobacco smoke (ETS) exposure, and cognitive and behavioral outcomes. Search results were summarized as text for possible incorporation into the manuscript. Weekly research team meetings furthered understanding of statistical analyses and interpretation of results.

Results/Outcomes: Literature reviews yielded the following findings: positive correlations between self-reported tobacco use and cotinine levels supported the validity of rank ordering of maternal and child tobacco smoke exposure levels using self-reported data; opinions on cotinine measurement media were mixed but favored the utility of the established media of blood, saliva, and urine; and the associations between PTE and cognitive and behavioral outcomes remained complicated due to potential residual confounding by postnatal factors, including ETS exposure, but were biologically plausible. Potential implications of the study findings include support for interventions targeted towards smoking cessation among pregnant women and reduction of ETS exposure to decrease the risk of adverse cognitive and behavioral outcomes among offspring.

Name: Fuxi Lu

Practicum Site: Carlisle Health Department

Location: Carlisle, MA

Title: Protecting Teen Workers Project

Introduction: Teens have a higher risk for nonfatal injuries in the workplace than older workers, and may not know what rights they have in case of injury. One of the projects I worked on at the Carlisle Board of Health (BOH) was to promote workplace safety to local parents and teens, with the goal of lowering teens' risk of workplace injury through education.

Methods: I made the teen safety portion of the BOH booth at Carlisle's Old Home Day festival, which included brochures, an informational binder, and a poster display. I also made business cards promoting the BOH webpage, and set up a raffle to draw in booth visitors. The webpage was later updated with an article I wrote on teen worker safety. A workshop for parents and teachers at the Concord-Carlisle High School is planned for the school year and a speaker from the DPH project, Teens at Work, has agreed to speak at the workshop.

Results/Outcomes: The webpage can be used as a resource for parents and teens, and the local paper will be running an article on teen worker safety. Workshop planning will start in September once the school year starts, and will educate parents and teachers on the topic. Eventually, the project could include yearly workshops for parents and/or teens. The BOH can use the current project to establish a long-term resource for teens and parents.

Name: Rose MacKenzie

Practicum Site: Connors Center for Women's Health and Gender Biology

Location: Boston, MA

Title: Cost Containment Policy Analyst

Introduction: The Women's Health Policy and Advocacy Program is a core component of the Connors Center for Women's Health and Gender Biology. The program's mission is to inform and advance policy at all levels – local, state and national – to promote the highest standard of health and health care for all women. Currently, the program focuses much of their work on state and national health reforms and their impact on women's health.

Methods: I am working directly with the Director and Senior Policy Analyst of the program to assist in developing an advocacy strategy for strengthening collection and reporting of sex-stratified data in health research on both a state and national level and to research and write a report on Massachusetts' new cost containment law, Chapter 224.

Results/Outcomes: Focusing on women and their health needs can have a profound effect on efforts to control costs and improve quality. Women's care costs the system more because women have longer lives, more chronic conditions, and more complex reproductive health needs. At the same time, women act as managers of care not just for themselves but for their families and can help us navigate towards a more effective system. Because women's health can have such a profound impact, we created a checklist for public health officials and women's health advocates to 1) understand Chapter 224 and its implications for women; 2) improve women's health through the implementation of Chapter 224; and 3) better plan payment and delivery system reforms in the future from the standpoint of women's health needs.

Name: Grace Namirembe

Practicum Site: Boston University School of Public Health—Department of Epidemiology

Location: Boston, MA

Title: Graduate Research Assistant

Introduction: Quitting smoking is the most important step that smokers can take to benefit their health. High income smokers have higher quitting success rates than low income smokers. This leaves the latter to face a greater burden of smoking-related morbidity and mortality. Therefore, interventions to improve the rate of smoking cessation among low-income smokers are urgently needed. This project is actively conducting a group-randomized trial among Boston Public Housing residents, a group characterized by low income and education level, and an over representation of racial/ethnic minorities -- all factors associated with lower use of smoking cessation treatments and less success in quitting. The project aims to test whether the use of resident Community Health Advocates with special training in smoking cessation (Tobacco Treatment Advocates (TTAs) can improve (1) utilization of quitlines and clinic-based programs and (2) smoking cessation rates among smokers in public housing.

Methods: I conducted baseline and follow-up interviews using the QDS HAPI system. My main focus was on issues regarding the implementation of the BHA policy and how this impacted smoking cessation. I exported data from QDS system to SAS, cleaned, merged different data sets from different sources and analyzed it.

Results/Outcomes: We met the recruitment target of 621 participants. Most of the smokers in both the intervention and control arms reduced the number of cigarettes they smoke and a few quit completely by the 12 month interview. Analysis of the data will show the effect of the BHA policy on smoking cessation.

Name: Aileen Ochoa

Practicum Site: Melrose Health Department

Location: Melrose, MA

Title: Summer Intern - Mass in Motion Melrose/Wakefield

Introduction: Mass in Motion is a state-wide initiative to support communities in implementing programs encouraging residents to eat healthy and exercise more to reduce obesity and related chronic diseases risk. Key components of the plan are the Healthy Dining Initiative, in which communities work with local restaurants to create and identify healthy options; Healthy Corner Stores, where communities ask corner stores to stock healthy items; and Safe Routes to Schools, which encourages children to walk or bike to school regularly.

Methods: In summer 2013, efforts focused on implementation of Healthy Restaurants and Corner Stores initiatives in Melrose and Wakefield. Menus of three restaurants were reviewed and meetings were set up with corner store managers. Walk-ability assessments were also scheduled for two areas for completion in August. Two assessments were conducted in corner stores describing current stock.

Results/Outcomes: Three restaurants, two in Wakefield and one in Melrose, have been Healthy Dining certified. Two corner stores have also been approved and another will be approved shortly. One corner store surveyed will not have to change their stock significantly while another offered fewer healthy items compared to earlier this year. Building relationships with restaurant and corner store owners has been essential to realizing project objectives. Gentle follow-up has been necessary to achieve goals timely but most owners are very willing to make the changes suggested especially since deletion of unhealthy options was not required. Difficulties arose due to limits on corner store distributor lists and lack of customer demand for fresh vegetables.

Name: Natasha Oyedele

Practicum Site: Massachusetts Department of Public Health—Division of Epidemiology and Immunization

Location: Boston, MA

Title: Investigating methods to improve hepatitis C case report form response rates in Massachusetts

Introduction: In Massachusetts, 7,000-10,000 newly diagnosed HCV cases are reported to the Department of Public Health (MDPH) annually. Follow-up on cases of HCV infection is conducted through a case report form (CRF) sent to the ordering providers, which collects demographic information clinical history and risk history. Among HCV cases with event dates between 7/2012 and 12/2012, 50.6% have completed CRFs. The goal of this investigation is to understand the lack of response and identify solutions to improve surveillance.

Methods: HCV cases (n=3336) with event dates between 07/01/2012 and 7/31/2012 were identified. Cases with completed CRFs, first CRF sent after 1/2013 and providers from specific clinics were excluded. Clinicians for the remaining 1207 cases were identified through laboratory results and were contacted between 6/2013 and 8/2013. An HCV survey tool was developed to assess the behaviors of the providers. The data was entered and analyzed in Epi Info.

Results/Outcomes: Ninety-seven clinicians were called and 31 interviews were completed. Ordering providers specialized in Internal Medicine (30%) and Family Medicine (26%) and the ordering physician or nurse practitioner (66%) was responsible CRF completion. A majority of providers interviewed test patients with identified risk factors for HCV or abnormal liver function tests. More than half of the providers do not remember receiving the CRF, suggesting that the person responsible for form completion may not receive the paperwork. Further education of providers on what triggers a CRF to be sent, how data is collected, and contact via email could improve HCV surveillance.

EPIDEMIOLOGY

Name: Jeannette Quinn

Practicum Site: Tufts University Health Service—Department of Alcohol & Health Education

Location: Medford, MA

Title: Alcohol Data Management Intern

Introduction: The Department of Alcohol & Health Education (DAHE) envisions a campus which understands the impact of the environment on healthy communities. DAHE fully supports a continuum of education and prevention, early intervention, and access to services and promotes a culture of recovery and healthy life choices for all. To assist in DAHE's goals of targeted prevention and intervention, my practicum analyzed the alcohol violation data for demographic, spatial, and temporal trends of student alcohol violations as well as to consider additional variables that might be useful in future data collection efforts.

Methods: This practicum involved several components: 1) data validation, verification, and cleaning of existing alcohol violations data; 2) data analysis; 3) literature reviews to provide background and for consideration of additional variables for future data collection; and 4) design of student survey that will include current as well as recommended variables. Investigative analyses of demographic, spatial and temporal trends were conducted using ArcGis, SAS, R, and SPSS.

Results/Outcomes: Targeted education, prevention, and intervention regarding alcohol use/abuse require a solid understanding of student drinking trends. The results of these data analyses in addition to a new survey with additional variables will provide DAHE with relevant information regarding student trends. These analyses, reports, and the collection of additional pertinent data variables will inform future educational, prevention, and intervention efforts and enable DAHE to implement targeted programs resulting in more timely, efficient and effective outcomes.

Name: Ayesha Rabbani

Practicum Site: Boston University School of Public Health—Department of Epidemiology

Location: Boston, MA

Title: Evaluating the pneumococcal bacterial colonization in the nasopharynx in children under 5 years old

Introduction: Children with comorbidities are at increased risk of developing Invasive Pneumococcal Disease (IPD), which is preceded by nasopharyngeal colonization with *Streptococcus pneumoniae*. This study aims to compare colonization with *S. pneumoniae* in children with comorbidities compared to children without comorbidities.

Methods: The outcome and demographic data used for this project is drawn from nasopharyngeal colonization data from children aged 0-5 years old attending the Primary Care Center at Boston Medical Center from July 2010-December 2012. First, using Excel, entries were matched on identification information to ensure data were consistent between outcome and demographic data. Logic tests were applied to clean the data. Using SAS, data were properly coded and statistical analyses were applied to generate descriptive tables.

Results/Outcomes: After limiting the dataset to first visits, 2593 children under 5 years old (mean age 25.2 months) were included in the analysis. Preliminary results show that 21.8% of children were colonized with *S. pneumoniae*. Among those colonized, 12.4% were colonized with serotypes covered by the PCV13 vaccine (serotypes 4, 6B, 9V, 14, 18C, 19F, 23F, 1, 3, 5, 6A, 7F, 19A). Future analyses will include comorbidity data extracted from electronic medical records. The association between comorbidity and colonization will be determined. This will inform whether children with comorbidities are at greater risk to develop IPD because of increased colonization or colonization with more invasive serotypes or because of an increased susceptibility for colonization to proceed to IPD.

Name: Alina Rossini

Practicum Site: Boston University School of Public Health—Department of Environmental Health

Location: Boston, MA

Title: Research Assistant

Introduction: Children residing in Torreón, Mexico have a history of elevated blood lead levels which have been associated with lower total and verbal IQ scores. Torreón is densely populated with much of the industrial activity located within the city. Lead exposure has been attributed to Met-Mex Peñoles, the largest smelter in Latin America and the fourth largest in the world located in Torreón. Other large factories in Torreón generate high levels of particulate matter.

Methods: As a first step in developing a comprehensive geographical database describing the city and population at risk of exposure to heavy metals, I compiled publicly available geographical data for Torreón (blocks, streets, neighborhoods, etc.). I then built geographical layers for sites of interest, which included large factories (> 100 employees), and public/private primary and secondary schools. Finally, I computed geographically derived statistics about the city, like the distance between schools and factories.

Results/Outcomes: I built geographical layers for public/private schools and large factories. The resulting geographical database describes characteristics of the city, population, and basic industrial activity and can be used to identify at risk populations and inform research hypotheses. For example 38% of primary public schools are within a 3 km radius of the smelter plant, and 86.5% are within a 3 km radius of large factories. I also found that over 123,500 people live within 3 km from the smelter. Thus, the students at these schools and people living in this area may be at risk of exposure to high environmental lead levels or other pollutants.

Name: Suzanne Shdo
Practicum Site: Harvard University—Laboratory for Clinical and Developmental Research
Location: Cambridge, MA
Title: Research Assistant

Introduction: Self-injurious behaviors (both suicidal and non-suicidal) are significant public health problems particularly among children and adolescents. In the United States, approximately 4,600 annual adolescent deaths are attributed to suicide, making it the third leading cause of death among youth ages 12 to 19 (Centers for Disease Control and Prevention [CDC], 2010). The goal of this practicum was to learn about current research methods and treatments for adolescents engaging in self-injurious behaviors. Specifically, the objectives of the practicum were to aid in the preparation of a literature review that summarized existing evidence-based psychosocial treatments for self-injury in youth, as well as to help collect and analyze data for a prospective study that aims to improve prediction suicidal thoughts and behaviors in adolescents.

Methods: Project 1: Contributed to a literature review on treatments for self-injurious behaviors in youth. Project 2: Collected data by running adolescent participants through a series of behavioral and psychophysiological tasks. Project 3: Cleaned and scored psychophysiological (i.e., eyeblink startle reflex) data.

Results/Outcomes: The review indicated that there are no well-established treatments for self-injurious behaviors in youth. A few probably efficacious treatments were identified; however, few randomized controlled trials (RCTs) have been conducted using these treatments. The practicum advisors, Dr. Glenn and Dr. Nock have submitted a manuscript to the Journal of Clinical Child and Adolescent Psychology. Summary results from data collection indicated demographic diversity in the sample.

Name: Alysa Skok
Practicum Site: Brigham and Women's Hospital—Men's Health, Aging and Metabolism Research Unit
Location: Boston, MA
Title: Research Intern

Introduction: At the Department of Men's Health various studies are conducted dealing with the endocrinology of older men. I was brought on to gain an in-depth understanding of clinical trial operations and to assist with a specific study protocol.

Methods: During the practicum I had a number of different responsibilities which allowed me to explore many aspects of clinical trial administration. First, I was trained in clinical practices and the standard operating procedures for the department. I was then trained on one protocol that dealt with protein and testosterone in older men. I helped to plan and conduct participant recruitment. I then conducted structured phone pre-screenings of interested individuals with an IRB approved script. I was responsible for determining whether participants were eligible to come for in-person screening visits. If so, I would schedule their appointments and send them additional information. I also updated the Phone Screen Log and the Screening and Enrollment Log to reflect the current status of the trial. Additionally, I worked with the study coordinators, helping with multiple trials and gaining exposure to their daily operations.

Results/Outcomes: Through this experience I have learned about the many aspects involved in the daily operation of clinical trials, including IRB regulations, protocols, participant recruitment and screening. For the clinical trial I was assigned to I have called over 350 interested subjects, screened about a quarter of them, and scheduled around 15 subjects for their first in-person screening visits.

Name: Elizabeth Thompson
Practicum Site: Ziopharm Oncology
Location: Boston, MA
Title: Data Integration Coordinator

Introduction: ZIOPHARM Oncology, Inc. is a biopharmaceutical company with 5 clinical-stage cancer therapies currently in development. For one of ZIOPHARM's products, I was tasked with reviewing vendor created publishing packages to ensure proper standardization into the CDISC Study Data Tabulation Model (SDTM) prior to the data's submission to regulatory authorities. Publishing packages consist of six documents: Annotated Case Report Form, Reviewer's Guide, Value Level Metadata, Computational Algorithms, Datasets, and Controlled Terms or Format.

Methods: After review of SDTM guidance documentation, I reviewed the six documents of the publishing package in their entirety for two studies. This review included confirming the proper SDTM formatting was utilized in terms of general document structure, variable selection, functionality of links within the documents, and confirming the appropriate code lists for variables were used as well as assessing and revising vendor responses to errors. When issues were identified, the findings were relayed to the vendor as well as to members of the internal team for discussion and remedy.

Results/Outcomes: My review found more issues than were anticipated which slowed my overall progress. The issues were a combination of several factors: clinical report forms created without consideration for future SDTM standardization, improper use of variable code lists, and incorrect classification of variable types were the most common findings. Although work was halted on this effort, the team is currently ensuring that this task is performed proactively for new trials ensuring a smoother process for the next product.

EPIDEMIOLOGY

Name: Jonathan Wu

Practicum Site: University of California, Irvine Medical Center—Division of General Internal Medicine

Location: Irvine, CA

Title: Junior Research Analyst

Introduction: Many hospitals emphasize the importance of hand hygiene, which is one of the most important ways to prevent hospital-acquired infections. However, relatively little attention is paid to stethoscope hygiene, although they can transfer dangerous pathogens between patients just like hands. The purpose is to observe whether appropriate stethoscope hygiene behavior is being practiced at the UC Irvine Medical Center Department of Internal Medicine because preliminary and anecdotal evidence suggests that very few doctors adequately clean their stethoscopes between patients, which could be a potential threat to various infectious diseases. After sufficient baseline data is collected, I will design a behavior intervention in order to increase the rates of appropriate stethoscope hygiene at this hospital and potentially others as well.

Methods: Background researches on previous findings of stethoscope hygiene practice were reviewed prior to completing a protocol narrative for IRB submission. After the approval, I shadowed and observed different internists with their teams (residents, medical students, RN/NP/PA) and collected data using a form that I created to determine whether they practiced stethoscope hygiene after each interaction with their patients, and if so, how: use of a patient specific “isolation” stethoscope, application of hand sanitizer, or a purpose-made disinfecting cloth for equipment cleaning.

Results/Outcomes: This study is still in progress. From the results obtained so far, 92% of the interactions between patients and physicians did not include stethoscope hygiene behavior. However, 83.3% of physicians did clean their stethoscopes with wipe cloths after interacting with an isolated patient in an isolation room.

Name: Allen Wu

Practicum Site: Massachusetts Department of Public Health—Division of Epidemiology & Immunization

Location: Boston, MA

Title: Entry and analysis of hospital-based hysterectomy chart review data

Introduction: Since MDPH began surgical site infection (SSI) surveillance in 2008, infection rates for vaginal hysterectomy procedures (VHYS) have been significantly higher than expected throughout Massachusetts. In order to assess potential causes of this discrepancy in infection rates, a retrospective case-control study was done, analyzing chart reviews previously collected through hospital audits.

Methods: Thirty-six hospitals throughout Massachusetts participated in the case-control study contributing 332 chart reviews [110 cases and 222 controls]. Cases were selected by the Healthcare Associated Infections (HAI) team at MDPH for each hospital to review. Controls were selected by the hospital using guidelines provided by the HAI team. Epi Info 7 was used to transcribe the chart reviews and to build a database. SAS 9.3 was used for data cleaning, validation, and analysis. Three data elements were selected for in-depth analyses: robotic surgery, cancer status, and BMI.

Results/Outcomes: Upon completion of the initial analyses, none of the selected data elements appeared to explain the increase in SSI for VHYS. After stratifying by procedure type, the odds ratio (OR) of robotic surgery was 1.00 (95% CI: 0.32-3.10). The OR of cancer status was 0.66 (95% CI: 0.17-2.55). The distribution of BMI suggested that patients receiving VHYS had lower BMIs. Though the project did not identify potentially causal factor(s), establishing the audit database allows the generation of new hypotheses by examining other collected data elements, such as pre-operative procedures, other patient risk factors, and complexity of the surgery itself.

Name: Edriss Yassine

Practicum Site: Boston Medical Center, Infectious Disease Clinical Trials Unit - TB CDRC—Data Coordinating Center

Location: Boston, MA

Title: TB CDRC Data Management Intern

Introduction: The TB CDRC is a consortium of doctors, scientists and personnel whose objectives are to analyze and provide data on new diagnostic methods and their impact on TB in endemic countries. The main study I worked on was a cross sectional study using SMF (Small Membrane Filtration) in Kampala, Uganda. The study is evaluating the feasibility and accuracy of the SMF manifold in adult pulmonary TB suspects. The SMF is a new method that can be used to diagnose TB cases by increasing the sensitivity of the AFB smear.

Methods: As a data management intern, I helped analyze the data from the surveillance site, inputted them into the computer analysis software, Teleform®, resolved any queries and helped with the overall data analysis using SAS in order to compare and contrast the results from the SMF to the current gold standard of TB diagnosis in order to determine the feasibility and accuracy of the SMF.

Results/Outcomes: This is an ongoing study that does not have final results yet, however, I was able to analyze data for 228 study participants from the site, input their results into the database, resolve queries, perform data cleaning for the database and do some preliminary analysis using SAS. If the SMF method is shown to be superior to the current gold standard, it has the potential to be the new primary diagnostic method for TB in endemic countries.

Name: Li Zhang

Practicum Site: Brigham and Women's Hospital—Men's Health, Aging and Metabolism Research Unit

Location: Boston, MA

Title: Research Intern

Introduction: Men's Health, Aging and Metabolism Research Unit is dedicated to conducting clinical research that advances the understanding of the effects of testosterone administration on various clinical outcomes. My practicum involved: 1) recruitment of study subjects; 2) quality control (QC) of study data; 3) overview of regulatory procedures and IRB submissions.

Methods: I reviewed standard operating procedures (SOPs) and regulatory binders. After input from the study team, I made modifications for Men's Health SOPs. Using role playing techniques, I worked with the study coordinator to practice subject interviews (in-person screening and informed consent process). After the start-up activities, I participated in study recruitment. I designed and revised study's recruitment materials (e.g. recruitment letters, brochures, flyers, ads) with study coordinators. Lastly, I used quality control procedures to check data entry.

Results/Outcomes: A new SOPs of Men's Health Research Unit was created to regulate each section of the research work in the research unit. Recruitment materials were approved by IRB and sent out to potential participants after revision. QC data entry improved the accuracy of the data in the study.

HEALTH LAW, BIOETHICS & HUMAN RIGHTS

Name: Claire De Jong
Practicum Site: Medical-Legal Partnership Boston
Location: Boston, MA
Title: Legal/Public Health Practicum

Introduction: Medical-Legal Partnership Boston (MLP Boston) is a non-profit organization that aims to improve the health and well-being of vulnerable populations. MLP Boston attorneys work with clinicians at area hospitals, and accept referrals for patient-clients who need legal help in areas such as immigration, housing and utilities, domestic violence, and disability and nutrition benefits. Patient-clients' legal issues often impact their health and the collaboration between clinicians and attorneys allows patient-clients to be treated holistically and successfully.

Methods: I am working directly with an attorney who is also a JD/MPH on various projects related to sickle cell disease. One major project is a data summary on the use of a day hospital to provide care for sickle cell pain crises, which is being presented to the Boston Medical Center (BMC) government relations staff in an effort to convince them to reopen the day hospital on site. Another major project is a study being conducted at Boston Medical Center and Children's Hospital Boston on the social-legal needs of pediatric sickle cell patients and their families.

Results/Outcomes: The study currently being conducted is projected to show that the vulnerable population of sickle cell patients has social-legal needs that can be effectively identified and addressed in the clinical setting. The day hospital data summary and presentation will result in BMC's government relations staff understanding the benefits of the day hospital model and pave the road to re-opening the BMC day hospital.

Name: Shin-Yi Lao
Practicum Site: Health Resources in Action—Training and Capacity Building
Location: Boston, MA
Title: Policy and Community Development Intern

Introduction: Health Resources in Action (HRiA) is a non-profit, public health consulting organization with a goal of attaining health equity through policy, research, prevention, and health promotion. HRiA partners with state and local governments, communities, neighborhood coalitions, and research foundations to advance public health and medical research.

Methods: As the Policy and Community Development Intern I worked on two separate projects. The first is a case study of health care reform in Massachusetts (MA) which will provide guidance to other states as they implement the Affordable Care Act (ACA). For this project I compiled research on comparisons between MA health care reform and the ACA, lessons learned from MA health care reform, and the extent to which the MA experience can be applied to the rest of the nation. I also synthesized data from interviews with individuals who participated in the creation and implementation of MA health care reform. The second project is training youth in Malden, MA to use the PhotoVoice method of enacting social change. For this project I assisted in teaching youth to document and convey their perspective on the positive and negative aspects of their community to policy makers.

Results/Outcomes: For the case study, the literature review is complete, the interviews are ongoing, and the final product will be completed in November. For the PhotoVoice training, the training sessions are complete and the youth will be presenting their final product in August.

Name: Jessie Lee
Practicum Site: Mass-Care
Location: Boston, MA
Title: Single Payer Health Care System Advocate

Introduction: The current health care system in the United States is expensive and discriminatory on race/ethnicity, class, and gender, with people having very different coverage and millions lacking health insurance. Mass-Care aims to introduce and implement a Single Payer Health Care System in Massachusetts so that all residents have access to "comprehensive, quality, affordable and equitable health care." The purpose of this practicum is to support the Mass-Care's mission of eliminating the inequalities of our health care system by advocating the Single Payer Bill.

Methods: For the Single Payer initiative to get implemented, it is essential to gain support from the general public, partnering organizations, and the State Legislature. I performed the literature review to develop handouts targeting each specific audience, including union members and city employees. Also, I kept monitoring the State Legislature website and updating the list for upcoming healthcare-related hearings, prepared testimony and follow-up meetings with electeds and community activists, and entered into database for future tracking.

Results/Outcomes: The Single Payer Bill is expected to be heard at the end of this year. All developed handouts and resources will be distributed during community events and outreach. My work through the legislation process will help set the stage either for the current legislation to be moved out of committee, and to the floor for a vote, or preparation of a ballot question during the 2016 elections that would create a single payer system for the Commonwealth.

HEALTH LAW, BIOETHICS & HUMAN RIGHTS

Name: Erin Liang

Practicum Site: Organization for Economic Cooperation and Development—Health Division

Location: Cambridge, MA

Title: Health Policy Research Intern

Introduction: The Auditor's Office ensures that all every dollar given to the state government is well spent and that agencies and contractors follow the rules when spending public funds. The Office has been charged with evaluating the current state of health care under Chapter 224: An Act Improving the Quality of Health Care and Reducing Costs Through Increased Transparency, Efficiency and Innovation. The public health problems being addressed are increasing costs, problems with access, implementation of new systems to improve efficiency and a reform of the health insurance system, among others.

Methods: I research current health care issues and write memorandums concerning current health care issues. I examine the current regulations, the impact on the state health care system, associated costs, and any causes for concern with implementation or unintended consequences. Additionally, I am creating an organization map of Massachusetts government agencies and programs with an accompanying glossary. My supervisor uses my memorandums to stay up to date on recent regulations or current issues. The organizational map will be used as a reference tool for the entire office and to guide audits in the future concerning potential overlap and inefficiency within and across agencies.

Results/Outcomes: I have completed several memorandums to date concerning Workplace Wellness Programs, out-of-pocket costs, behavioral health care carve-outs, and medical marijuana. I am continuing work on the agency organizational map until the end of August. I am hoping to stay on with the State Auditor's Office into the fall.

Name: Stephanie Parver

Practicum Site: Boston Medical Center—Office of Patient Advocacy

Location: Boston, MA

Title: Patient Advocacy Intern

Introduction: I worked as a patient advocate at BMC, helping patients resolve issues with providers, log complaints, and generally navigate the hospital system. BMC serves a uniquely needy population, where many patients are often unfamiliar with the health system and the resources available to them. A patient advocate can be a link between a patient and the care they need. I worked directly with patients in resolving problems and facilitating communication and information between themselves and their providers to ensure a more efficient practice where patients could feel like they were being heard and appreciated.

Methods: I primarily assisted patients by doing an intake evaluation of their claims over the phone. After getting their information and determining the issues that needed to be fixed, I usually went forward to contact the involved parties to solve the issue at hand. I also did rounds of patient floors to evaluate patient experience and satisfaction, while also resolving issues regarding quality of care and specific patient requests. I drafted and compiled information for the new Bereavement Committee's website, along with social work staff.

Results/Outcomes: I gained a crucial understanding of the influencing factors of patient experience, as well as experience in the workings of a busy city hospital. I successfully resolved patient claims relating to quality of care, billing, records, HIPPA, among other things. The website for the Bereavement Committee went live at the end of the summer, and is helping to promote the hospital's extensive resources for patients and families regarding end of life experiences.

HEALTH POLICY & MANAGEMENT

Name: Stephanie Anastasio
Practicum Site: Veterans' Affairs Boston Health Care System
Location: Boston, MA
Title: Education/Hospital Administration Intern

Introduction: The VA Boston Healthcare System (VABHS) is a major affiliate of Boston University School of Medicine and Harvard Medical School, as well as several other academic institutions. Up to 2915 trainees in all medical and allied health disciplines rotate through VABHS every year. The current trainee credentialing process is lengthy and cumbersome, resulting in credentialing delays. The goal of the project is to utilize lean tools to eliminate wastes and streamline the trainee credentialing process to ensure there is no negative impact on patient care.

Methods: To understand the existing trainee credentialing process, we interviewed key stakeholders and created a current-state process map. We then identified waste, redundancies, and non-value added steps using lean methodology. This included SIPOC, A3 Process Mapping, Root Cause Analysis, and data collection. Electronic PDF forms that enable trainees to electronically complete, sign, and securely submit their application packages were created and compiled. An implementation and sustainability plan was outlined after completing a PDSA.

Results/Outcomes: A future state map has been created that eliminates waste and redundant steps within the process. The first PDSA has been implemented and has reduced the total credentialing time, as well as the physical space utilized in the Education Office. The process is now entirely electronic, complete with secured messaging and storage in a shared folder. This new process has greatly reduced the time and space needed to review trainee applications in time for their rotations.

Name: Lisa Buchsbaum
Practicum Site: Health Care for All
Location: Boston, MA
Title: Policy Intern

Introduction: Health Care for All (HCFA) provides public policy education to community groups, analyzes legislation from the State House, lobbies and advocates on behalf of consumers and monitors the various health access programs offered by the state. My role as a health policy intern at HCFA was to assist with the implementation of Chapter 224, known as payment reform, the state's effort to improve cost and quality of care. My focus was to support the policy team in three specific areas: Quality Improvement, Massachusetts Alliance to Support Heroes (MASH), and the Massachusetts Dual Demonstration Project— One Care.

Methods: During my time at HCFA, I was the point person for the Statewide Quality Advisory Committee (SQAC), in which HCFA held a chair. I took notes at SQAC meetings and blogged about their progress in setting health care performance metrics and uniform reporting of the Standard Quality Measure Set (SQMS). In addition, I supported HCFA's efforts in launching MASH, a community-based education and advocacy initiative to empower veterans and their families as health care consumers. I supported MASH through research and outreach. Finally, I was HCFA's expert in the state's health care pilot, One Care. I tracked the implementation of the program that is serving the state's dual eligible population. I created consumer-friendly fact sheets, trained HCFA's HelpLine staff on the program, and assisted in the proposal of HCFA's role in supporting the state's Ombudsman program.

Results/Outcomes: As all of these efforts are ongoing and still being implemented, my role was to support HCFA's policy team.

Name: Zoe Burns
Practicum Site: Health Care for All
Location: Boston, MA
Title: Policy Intern

Introduction: Health Care For All organizes campaigns that are designed to impact State House action on priority legislation. The policy department advocates on behalf of consumers, and provides education on public policy. As a policy intern it was my job to research topics relative to HCFA's legislative priorities. My research was used to strengthen advocacy efforts and to inform health care consumers of important issues through blog posts.

Methods: I worked collaboratively with policy staff around policy/budget priorities through performing research, literature reviews, blog writing, and composing internal memoranda. I co-authored a detailed internal memorandum on integration of behavioral health and primary care services. This included potential implementation practices and recommendations. I also wrote an internal memorandum on drug makers' payment disclosure to prescribers, relevant to current HCFA legislation.

Results/Outcomes: My work at HCFA has contributed to health care consumer education and my research has provided policy staff with evidence necessary to build a strong advocacy campaign for issues such as behavioral health and primary care integration and payments from pharmaceutical companies to prescribers.

HEALTH POLICY & MANAGEMENT

Name: Michael Cannella

Practicum Site: Attorney General's Office

Location: Boston, MA

Title: Analyzing Transactions and Practices in the Healthcare Sector for Compliance with Antitrust Law

Introduction: The Antitrust Division is responsible for investigating conduct that may violate State and Federal Antitrust laws and harm consumers. While the Division has always investigated anticompetitive conduct in the healthcare sector the recent passage of Chapter 224 of the Acts of 2012 or the "Cost Control" law has increased that focus. This legislation created the Health Policy Commission which is tasked with reviewing changes that a healthcare provider may make to their operations or governing structure and referring those with the greatest potential for anticompetitive effects to the Antitrust Division for review.

Methods: I worked as a law clerk drafting legal memoranda, primarily. This work was done in relation to two different investigations: (1) investigating an Eastern Massachusetts healthcare provider's structure and operations, and (2) performing a review of Partners Health Care Inc.'s acquisition of South Shore Hospital. These analyses applied either State or Federal law to the facts available to create determinations of whether a particular transaction or course of conduct by a healthcare provider would have anticompetitive effects. Moreover, I was also responsible for preparing a presentation that explained the legal and policy issues related to "pay-for-delay" agreements between brand name and generic drug manufacturers.

Results/Outcomes: Both of these investigations are ongoing and no detailed nonpublic information can be revealed at this time. However, the hope is that the outcome in either investigation will lead to cost and quality benefits to patients seeking care in the Commonwealth.

Name: Sinjin Carey

Practicum Site: Partners HealthCare—Corporate Revenue Integrity

Location: Boston, MA

Title: Corporate Revenue Integrity Intern

Introduction: Partners HealthCare System (PHS) was founded by the Massachusetts General Hospital (MGH) and the Brigham and Women's Hospital (BWH) in 1994. Today, in addition to the two academic medical centers, PHS includes community hospitals, specialty facilities, a managed care organization, and community health centers. As part of the Revenue Integrity (RI) Team, I assisted PHS in the implementation and maintenance of the Cobius Audit System, reviewed audit data, and developed strategies to reduce financial risk from audits.

Methods: I contributed to the implementation of the Cobius Audit System at Newton Wellesley Hospital, Faulkner Hospital, Massachusetts General Physicians Organization, and North Shore Medical Center by working with the entities to gather past audit data and secure data feeds from patient accounting systems. Additionally, my position helped maintain general operations of the BWH and MGH Cobius Software through workflow validation and weekly audit updates. I developed a timeline and report bundle for the senior leadership of the Entities which displayed current audit volume and financial risk.

Results/Outcomes: The audit tools and reports highlighted three areas of heavy audit activity: short length of stay, DRG validation, and charge accuracy. After the assessment, PHS is moving to involve case managers to produce proof of medical necessity, increase clinical documentation of services, and implement systems changes to increase charge accuracy through system edits. Ultimately, the reporting tools developed by the RI team showed senior leadership millions of dollars currently at risk and is currently assisting them in calculating financial reserves.

Name: John D'Adamo

Practicum Site: Veterans' Affairs Boston Health Care System—Executive Office of Administration

Location: Boston, MA

Title: Health Systems Administration Trainee

Introduction: As part of my Health Systems Student Trainee experience I was tasked with managing the installation of the Vocera communication device system for the West Roxbury VA. The system is designed to improve patient and staff experience. The personal device allows for one touch communication between staff members. Improvements were expected in patient experience through reduced noise levels and timely staff response. Staff efficiency was expected to improve as a result of reduced motion and time.

Methods: I worked with the Deputy Nurse Executive for the Boston Healthcare System to identify the key stakeholders and their values. Identification of best practices for implementation guided my development of the West Roxbury Implementation Plan. The plan included timeline of activities, required resources and stakeholders. As the liaison between Vocera and West Roxbury staff, I worked to ensure effective dissemination of key information and scheduling of all program activities. Resources and staff were scheduled for the design, installation and training phases. Additionally, standard operating procedures were developed for device distribution, cleaning and storage as well as proper device use.

Results/Outcomes: The Vocera Implementation plan will be utilized by VA Boston to ensure seamless implementation of the Vocera Communication device and system into the care environment. Installation of over 250 devices, training of over 400 staff members and development of a call flow data base will ensure that the Vocera device is running live at West Roxbury by October 1, 2013. The implementation plan will further be used for the expansion of the communication device system to include the two additional Boston facilities.

HEALTH POLICY & MANAGEMENT

Name: Lauren Dale
Practicum Site: Executive Office of Health and Human Services
Location: Boston, MA
Title: Legislative and Policy Intern

Introduction: The Massachusetts Executive Office of Health and Human Services (EOHHS) is the state agency in charge of health and human service programs. The agency oversees 16 departments pertaining to healthcare needs throughout the commonwealth. As a Legislative and Policy Intern for EOHHS, I tracked and analyzed current legislation within the Massachusetts House and Senate.

Methods: I worked with the Legislative Director to track current policy issues and maintained a spreadsheet of current legislation affecting EOHHS. By attending policy hearings and reaching out to each department I was able to obtain public, department, and industry input on current bills. I gained knowledge about potential public and industry opposition to policy changes, and the potential health and financial impacts different bills would have on EOHHS and the residents of Massachusetts. I performed background research and bill analyses of policies and outcomes in other states including subjects such as welfare reform and fair hearings regulations. I aided in drafting legislation in order to eliminate expired Boards and Commissions within EOHHS. I created Briefs for the EOHHS Secretary; this involved researching and obtaining agency input on potential issues of importance to specific elected officials.

Results/Outcomes: The departments' spreadsheet involving current legislation is up to date with input from both the public and government agencies. This allows EOHHS to make informed and timely decisions about health policy and programs. Moreover, I have gained great insight about health policy issues through this experience and learned how beneficial changes in healthcare programs are enacted.

Name: Andrea Fantegrossi
Practicum Site: Town of Canton Board of Health—Health Department
Location: Canton, MA
Title: Intern

Introduction: The Medical Reserve Corps (MRC) at the Canton Board of Health has been instituted to conduct preparations for emergency situations such as security threats and public health hazards, among others. MRC management aims to ensure that the MRC's supply of volunteers is sufficient and to maximize recruitment efforts. The goals of the practicum included updating the MRC database, recruiting new members, aiding new members in the completion of necessary requirements, and educating potential volunteers about the organization.

Methods: The MRC database was updated through the completion of three rounds of contact to volunteers which consisted of phone calls, emails, and letters. New and potential volunteers were educated about and recruited for the Medical Reserve Corps through phone calls, personal interaction, a newspaper article, a mass mailing, and emails, at which time the goals and duties of volunteers were discussed. Additionally, suggestions for ways to better serve people with special needs in emergency situations were considered at a conference and via email correspondence.

Results/Outcomes: This project resulted in the recruitment of new members and the exclusion of members who were no longer willing to volunteer. The organization of and recruitment efforts for the MRC system will likely enable MRC officials to elicit more favorable outcomes with regard to volunteer quantity during drills and in emergency situations. Additionally, the updated MRC database will result in more existing volunteers receiving updates, and will likely heighten volunteer attendance in emergency situations, during drills, and during training sessions.

Name: Lauren Fopiano
Practicum Site: Aria Marketing
Location: Newton, MA
Title: Assistant Account Executive

Introduction: Aria Marketing is a healthcare thought leadership, public relations, and marketing communications agency located in Newton, MA. The agency has a deep understanding of the healthcare industry and focuses mainly on clients in healthcare technology. Aria clients range from start-ups to industry leaders. The four clients I primarily worked with are: CynergisTek, Explorys, ZirMed, and ConnectedHealth.

Methods: As an assistant account executive, I worked with the Aria team on the accounts for each of my four clients. Responsibilities include planning and executive social media campaigns (Twitter, Facebook, LinkedIn, etc.), writing and editing press releases and media alerts, monitoring and clipping client coverage, maintaining monthly clip books and work in progress reports for each client, drafting pitches to media for client coverage and organizing interviews, developing competitor analysis reports, and attending various meetings.

Results/Outcomes: By performing these responsibilities and working with my clients, I developed a greater understanding of the healthcare technology industry. Through healthcare media research and developing pitches and other written materials, I broadened my understanding of concepts from BUSPH classes. I learned how concepts such as policy and regulatory changes are viewed from a vendor perspective and how healthcare is constantly changing from every facet and is not limited to a clinical setting. As a result of the press releases I helped to write, several stories were published in healthcare publications I have been exposed to in classes. I also helped develop successful social media campaigns for my clients.

HEALTH POLICY & MANAGEMENT

Name: Leslie Ann Gong
Practicum Site: Veterans' Affairs Boston Health Care System
Location: Boston, MA
Title: Health Systems Administrative Intern

Introduction: VABHS is a Level 1A three campus system, serving as an acute and tertiary referral center for VA Medical Centers in New England. Interruptions while filling prescriptions and inefficient practices cause pharmacy staff in the system's vaults to make prescription-processing errors that involve controlled substance drugs, resulting in low patient safety performance and drug accountability. The purpose of the project is to protect patients from prescription errors. The project scope is to improve the facility layout and make feasible adjustments to the prescription-filling methods at the busiest outpatient pharmacy vault.

Methods: I mapped out the operational processes and measured interruptions, prescription-filling time, workload, and number of errors. I surveyed stakeholders to gain insight about the operation and their suggestions. I will present the data to management level staff and consult on improvement strategies. Once the changes are implemented, I will analyze and evaluate its impact. I will collaborate with management to determine next improvement initiatives, including system-wide standardization.

Results/Outcomes: I found that clinicians do not routinely report errors, contributing to project challenges. However, our findings show that phone calls (28%) and clerks (28%) were major interruptions. We plan to minimize these top vault interruptions. About (33%) of the staff recommended facility-related changes; therefore, we plan to redesign the drugs' storage space. The projected outcome is to reduce errors and enhance patient safety. This quality improvement initiative serves as a basis for improving other pharmacy-related practices.

Name: Benjamin Hessing
Practicum Site: Edith Nourse Rogers Memorial (Bedford) VA Hospital—Department of Veterans Affairs/Veterans Health Administration
Location: Bedford, MA
Title: Expansion of Bedford VA Mental Health Services to other VA Medical Centers

Introduction: The Bedford VA is a long-term care facility that focuses on geriatric and psychiatric care. Bedford is renowned for its unique approaches to mental health services and is looking to expand one of its prominent programs via telehealth to other VA medical centers (VAMCs) that do not currently offer the service. The project consisted of researching and developing a business plan to expand some of these unique services through the use of telehealth within the VA guidelines.

Methods: We interviewed and meet with the different service line provider teams to gain and measure the support of the use of telehealth. Then, using project management tools, qualitative analysis and business market forecasting we narrowed the services down to two. These two services have the greatest potential for growth and the support staff in place needed to allow the service to grow. Focusing on the two services, we then performed a market analysis for each service and a financial analysis on the impact that the forecasted growth would have on the hospital's revenue and costs to support the services.

Results/Outcomes: The final deliverable for the project was a written proposal on the two services that we presented to the executive team of the hospital. We clearly outlined the two options and the resources needed to grow the services. We made our recommendation on which service we felt would have the largest impact for helping the hospital expand. The executive team took our recommendation and is now working on expanding both of the services we presented.

Name: Mai Hong
Practicum Site: Pediatric Physicians' Organization (PPOC)
Location: Brookline, MA
Title: Quality Improvement Intern at PPOC

Introduction: The Pediatric Physicians' Organization at Children's (PPOC) is an Independent Practice Association (IPA) made up of 200+ physicians in 75 pediatric primary care practices in Eastern Massachusetts. PPOC's primary mission is to enhance member pediatricians' ability to deliver the highest quality of care to the children and families they serve; PPOC has been working on managing Total Medical Expenses (TME) by building capacity to provide care in high value settings and implementing care coordination to support high risk patients. More specifically, PPOC is attempting to maximize the use of non-emergent outpatient settings and reduce unnecessary ED visits.

Methods: My role was to create a tool-kit for physicians and other pediatric primary care providers that would serve as a guide on how to reduce unnecessary ED utilization. The toolkit consisted of QI tools, prescriptive PDSA cycles that practices could implement, sample templates to help practices better communicate practice policies with patients, etc. I also created a webinar where 3 practices were highlighted for their successful efforts to reduce ED utilization and other practices could ask questions and share potential solutions.

Results/Outcomes: An even slight reduction in the use of ED could generate cost savings for all stakeholders. An increase in the use of non-emergent outpatient settings over the ED suggests better continuity of care and an increase in patient satisfaction. At this time, it is too early to measure whether the tool-kit and webinar has had an impact on practice operations or patient use of the ED.

HEALTH POLICY & MANAGEMENT

Name: Tae Yeon Koh
Practicum Site: Medical Tourism Training, Inc.
Location: Brookline, MA
Title: Research Intern

Introduction: Due to the growing public health concern associated with tobacco use, a comprehensive research of the various aspects of the disease burden of tobacco-related diseases and effectiveness of tobacco cessation programs must be performed. Although prevention is the best option, the purpose of this research is to gain a thorough understanding of how people quit tobacco use and sustain them throughout their lives, to make them healthier overall.

Methods: This research utilized my research skills and analytical skills to conduct literature reviews and analysis regarding the clinical burden of tobacco-related disease, the diverse treatment options for major diseases associated with tobacco use, inventory of tobacco cessation programs, both inside and outside the US. The results were compiled in weekly written summaries.

Results/Outcomes: In order to reduce the disease burden of tobacco use, it is imperative to understand the current health impacts of tobacco use and existing programs for tobacco cessation. I developed skills to conduct a needs assessment for the global issue of tobacco-related diseases. I also learned to conduct subsequent research and data collection to be used for future strategic planning to address the increasing health concerns of tobacco use. Results and outcomes are confidential.

Name: Ashley Liu
Practicum Site: Veterans' Affairs Boston Health Care System
Location: Boston, MA
Title: Education/Hospital Administration Intern

Introduction: The VA Boston Healthcare System (VABHS) is a major affiliate of Boston University School of Medicine and Harvard Medical School as well as several other academic and health care education institutions. Up to 2915 trainees in all medical and allied health disciplines rotate through the various clinics of VABHS every year. The current trainee credentialing process is lengthy and cumbersome. The goal of the project was to identify the delays and waste in the system and utilize lean tools to streamline the trainee credentialing process.

Methods: The existing process of trainee credentialing was identified through informational interviews with stakeholders and mapped into a current-state process map. Lean methodology was used to identify waste and remove non-valued added steps in the current process. This included SIPOC, A3 Process Mapping, Root Cause Analysis and data collection/analysis. We created electronic PDF forms that enabled electronic completion, signing and submission of applications and compiled them into an electronic trainee application package to be used in place of the current forms. An implementation/sustainability plan was outlined to support implementation of the proposed future-state process after successful PDSA cycles.

Results/Outcomes: A future-state map detailing elimination redundant steps in trainee credentialing is mapped out, reflecting reduction in total time and space utilized at the Education Office. An electronic trainee credentialing process is introduced with a secured shared folder to access and store documents electronically. This new process reduced time and space utilized to review multiple paper documents that were often incomplete or incorrectly submitted.

Name: Yash Mehta
Practicum Site: Empire Hemato-oncology Center
Location: Mumbai, Maharashtra, India
Title: Quality Manager

Introduction: Empire Hematology-Oncology Day care center was facing a major hurdle in relation with their Out Patient Department Patient wait time. Wait-time is a crucial factor in healthcare industry as the patients are emotionally fragile. This project focuses on the wait time for the patients who come to the center for a physician appointment. The aims of this project are to identify and analyze the main factors that contribute to this increased wait-time for the patients and to suggest ways that may help to reduce the bottle-necks.

Methods: 1) Initially a GAANT chart was prepared to outline responsibilities and timeline. 2) The patient flow was allocated according to the department and the location where the patient and staff interaction took place. 3) Once the Present VSM would be created, the activities and the bottlenecks that were contributing to the increased wait time would be identified. 4) A fishbone was then created as a method to find out the root cause analysis. 5) After the fish-bone was analysed, Mudras / Waste activities were identified. 6) Once the Bottlenecks were analysed, the wait-time generated from the wasteful activities were analyzed and recommendations to improve/bypass those wasteful activities were suggested.

Results/Outcomes: Once we mapped the processes and realized what the waste activities were and how those waste activities were creating bottlenecks in the entire patient experience. We addressed those bottlenecks and re-mapped the entire process. By doing this we were able to reduce the OPD waiting time by 40 percent.

HEALTH POLICY & MANAGEMENT

Name: Alison Mickiewicz

Practicum Site: Veterans' Affairs Boston Health Care System—Executive Office of Administration

Location: Boston, MA

Title: Hospital administration/health systems intern

Introduction: The VA Boston Healthcare System works on a three-pronged approach: to serve Veterans in the greater Boston area, conduct extensive medical research, and function as a leader in training medical students, nurses, and other health care providers. The role of Healthy Systems operations within the VA Healthcare Administration is critical to ensure that mission goals are met, while also striving for continuous improvements in a time of budget cuts and rapidly changing advances in medical technology, practices, and national policy.

Methods: Health Systems staff works closely with clinicians and other hospital staff to resolve issues concerning administrative and clinical operations. Several projects commenced during the internship, all with the underlying goal of improving healthcare delivery for Veterans, including: a cost-benefit analysis for the proposed construction of new dental operatories, development of a workflow chart to map out the contracts and logistics procurement process for hospital administrative officers, as well as collaboration on a healthy living communications initiative. Additionally, I participated in various committee efforts and professional development opportunities.

Results/Outcomes: As the Veterans Health Administration shifts to a “patient-centered” approach, the projects taken on will contribute to the goal of providing quality care to Veterans. Through exposure of Lean Management techniques and hospital administrative functions, the internship has proven to complement HPM coursework at BUSPH. Projects are currently ongoing and estimated to conclude in fall 2013.

Name: Amar Minhas

Practicum Site: Boston Medical Center—Department of Pediatrics

Location: Boston, MA

Title: Quality Improvement Initiative for Asthma Patients in the Pediatric Emergency Department

Introduction: Because a significant proportion of Boston Medical Center’s patient population is underserved, quality care delivery is essential. Asthma is quite common in this population, and the quality improvement team at BMC wants to reduce length of stay and admission rates for patients presenting to the emergency department with asthma exacerbation. They feel that administering corticosteroids earlier in the treatment process may help. In order to assess the effectiveness of such an intervention, we needed baseline data for mean length of stay and admission rates of pediatric asthma patients.

Methods: After familiarizing myself with IBEX, the electronic medical record software of the emergency department, we developed a list of search terms and selection criteria in order to capture only pediatric asthma data. After collecting data for several months of patients, I carried out statistical analyses to reveal trends in outcomes.

Results/Outcomes: Patients receiving earlier steroids tended to have shorter length of stay; this association was only statistically significant for one subgroup of patients, but the trend was present within the entire data set. Patients receiving early steroids tended to be admitted to inpatient status rather than discharged, but we believe this is due to selection bias; those receiving steroids earlier are more likely sicker patients requiring more urgent care. These results show that an early steroid administration intervention could decrease mean length of stay.

Name: Emily Morin

Practicum Site: Brigham and Women's Hospital—Center for Clinical Excellence

Location: Boston, MA

Title: Center for Clinical Excellence at Brigham and Women's Hospital

Introduction: I am working with the Performance Improvement team of the Center for Clinical Excellence on a project that is within the CWN at the Brigham and Women’s Hospital. There has been an issue of slow discharge times from the postpartum unit at the CWN, and some transfer patients have had to be turned away from Labor and Delivery because there were not any open beds in the postpartum section of CWN. I am working on the data and analyze phase of this performance improvement project.

Methods: We initiated a meeting with the head nurses on the three postpartum floors at CWN, to get their input and ideas before we started collecting data and to also get their buy-in on the charter and scope of work for this project. Our data collection involves a checklist for each patient that is being discharged on each day of the week, for 10 weeks. We are collecting data on the various data points that are possible reasons for delay in discharge.

Results/Outcomes: We are in the final stages of collecting data, and have analyzed our results thus far to conclude that there are several reasons for delay in discharge that CWN nurses could find ways to improve. These include: the time it takes to get bilirubin results, not enough breast pumps for patients on day of discharge, etc. The broader impact of this practicum is to help hospital staff to be constantly thinking about areas in which there can be performance improvement within their department or across hospital systems that they are a part of.

HEALTH POLICY & MANAGEMENT

Name: Janine Muccio
Practicum Site: Boston Healthcare Associates
Location: Boston, MA
Title: Healthcare Consultant Intern

Introduction: Payers, clinicians, regulators, and investors are increasingly assessing the value of drugs, diagnostics, and medical devices in terms of their outcomes, both clinical and economic. Boston Healthcare Associates helps emerging and established companies gain a competitive advantage in an increasingly complex health care marketplace. Boston Healthcare Associates combines strategic consulting with a deep understanding of the business development and reimbursement environments, and gives clients a real-world edge in assessing, creating, and capturing growth opportunities.

Methods: My role as a summer intern was to perform an array of tasks and projects to help the team produce deliverables in all stages of their market research life cycle. I conducted literature searches and reviews to summarize health economic, epidemiologic, and clinical materials, and analyzed current medical practices, competitive technologies, reimbursement policies, and other market adoption factors. As well I also conducted primary research & secondary research for emerging and marketed pharmaceutical, biotechnology, medical device, and diagnostic products.

Results/Outcomes: Findings from the data collection and analysis of the primary and secondary research were essential to provide clients with the information and analysis they needed to be better able to respond to the dynamic nature of the health care market. This analysis helped to ensure the availability of a pharmaceutical, medical device, or diagnostic by demonstrating that there is, or is not an adequate market for the product. Client-ready presentations and written reports were produced in a timely manner to support clients in product development, commercial launch, business development, and portfolio management.

Name: Siena Napoleon
Practicum Site: Boston Children's Hospital—Program for Patient Safety and Quality
Location: Boston, MA
Title: A Cost Utility Analysis of Oral Doxycycline vs. Parenteral Ceftriaxone for the Treatment of Lyme Neuroborreliosis in Children

Introduction: Lyme disease is the most common vector-borne disease (i.e. caused by a bite from a blood-sucking arthropod, such as a flea or tick, carrying an infectious microbe) in the US with approximately 20,000 cases reported each year. The current standard treatment for Lyme meningitis, parenteral (IV) ceftriaxone, has significant associated costs and complications. Doxycycline is a potential treatment alternative, but the costs associated with treatment have not been formally compared.

Methods: We performed a cost utility analysis to compare parenteral ceftriaxone (reference case) to oral doxycycline (test case) for children 8 to 21 years of age with confirmed Lyme meningitis. We used a 6-week time horizon. We obtained treatment costs from Boston Children's Hospital's charge master using a standard charge-to-cost conversion algorithm. We abstracted utility weights from published cost-effectiveness analyses of treatment for Lyme meningitis in adults. Based on published clinical trials in adults, we assumed the efficacy of the two therapies to be similar. We performed sensitivity analysis to vary our base assumptions with regards to probability of long-term neurological symptoms post-treatment and utility weights associated with incomplete recovery (referral to infectious disease specialist, long-term neurological outcomes).

Results/Outcomes: The cost per utility weight gained using the oral doxycycline strategy versus parenteral ceftriaxone was \$329,506. Even after varying utility weights and probabilities, the incremental cost-utility ratio still strongly favored doxycycline over ceftriaxone therapy for Lyme meningitis. For children with Lyme meningitis, doxycycline rather than parenteral ceftriaxone therapy dominates in our cost utility analysis. Future clinical trials should compare the clinical efficacy of doxycycline for the treatment of Lyme meningitis in children.

Name: Angela Nguyen
Practicum Site: Tufts Medical Center Physicians Organization
Location: Boston, MA
Title: Project Planning & Quality Improvement Intern

Introduction: Tufts Medical Center Physicians Organization had a practice of four physicians joined their health system and will be relocating to a newly built facility in Quincy. The Quincy Primary Care (QPC) project encompasses both managing and relocating a medical practice and identifying opportunities to improve the Pre-Registration process where patients' wait time over the phone varies from 5-30 minutes.

Methods: To have a better understanding of the process, I assisted as an interim Practice Coordinator by generating Tufts MRNs for QPC patients and reconciling scheduling for June and July between two scheduling systems. Participation in meetings with health IT, furniture vendors, contractors, communications team, signage designers, monthly management, ambulatory operations, and Practice Manager have shaped the development of a detailed Microsoft Project plan which listed and categorized all of the tasks with resources assigned. Meetings and interviews with stakeholders were conducted to assess the operational barriers and adopt a new Registration form to optimize the workflow.

Results/Outcomes: The detailed project plan was used by the Community Practice Administrator as a tool that provides a snapshot of the plan, manages the progress, and ensures accountability of individual tasks attributing to larger milestones within the anticipated timeline which included: Relocation of medical records, purchase of new furniture and equipment with lead time, relocation and settlement of vendors, notification of practice move and patient communication. Through the utilization of the Registration form, sufficient information can be captured and help QPC minimize wait time for their patients to 2 minutes.

HEALTH POLICY & MANAGEMENT

Name: Jing Ni

Practicum Site: Social & Scientific Systems, Inc.

Location: Silver Spring, MD

Title: Data Analyst Intern

Introduction: Clinical trials are very important to new treatment development. Clinical Research and Bioscience (CRB) of Social & Scientific Systems, Inc. focuses on advancing the research efforts related to many kinds of diseases. The main purpose of the practicum at CRB was to learn how to use SAS to analyze clinical data. The practicum also provided an opportunity to develop knowledge about the concepts of clinical trials design and data management.

Methods: We have many ongoing projects at the same time and most of the projects will last several years, so I finished many different tasks. The practicum activities included: 1) reading and learning the whole procedure of data management and analysis; 2) creating faked patient information and entering data to “Open Clinic”; 3) re-checking the Statistical Analysis Plan (SAP) and annotated Case Report Form (aCRF); 4) using SAS to run edits for faked and raw data. All these activities are steps in clinical data analysis and are helpful in understanding more about the industry.

Results/Outcomes: Since most of the projects are still ongoing, no project has reached the stage of final outcomes. This practicum has allowed me to better understand the Research and Development (R&D) process within the pharmaceutical industry, the difficulties of developing new treatments, and the basic requirement for working in this field.

Name: Michael Nickerson

Practicum Site: Veterans' Affairs Boston Health Care System—Executive Office of Administration

Location: Boston, MA

Title: Health Systems Administration Trainee

Introduction: As a Health Systems Management Trainee at the Veterans' Affairs Boston Healthcare System (VABHS), I performed a number of clinical business and administrative projects in support of the Director's Office. This office oversees activities of the various service lines within the hospital, one of which is the procurement/ purchasing process for medical services and supplies. There is currently no flow chart or process map for Administrative Officers (AO's) to use for service-level procurements of these goods or services. An outside vendor is typically contracted through a system initiated within VABHS by the Office of Logistics and Procurements, as well as the Medical Sharing Office of Contracting, housed outside of the hospital. Often times, the Administrative Officers involved in the process are confused by how the VA purchasing process operates. My project involved creating a workflow chart and administrative distribution tool to streamline the government purchasing process for new AO's.

Methods: I interviewed and collected qualitative data from AO's in service lines that are involved in the medical procurement process, such as Radiology and Surgery. Once obtaining narratives and assessing barriers in purchasing services and supplies, I researched existing protocols and standardized operating procedures within the VA for processes such as vendor identification and sole source justification. Following creation of the procurement workflow tool, I then worked with the AO's in creating a Supervisor Resources Sharepoint site, a repository of resources for starting AO's and managers.

Name: Caitlin Parnell

Practicum Site: Boston University—Occupational Health Center

Location: Boston, MA

Title: HCW Medical Surveillance Program Graduate Intern/Director

Introduction: Multiple agencies (OSHA, CDC, MA DPH) produce guidelines regarding work place protections for practicing clinicians, particularly related to medical surveillance and vaccinations. The CDC states, “many healthcare workers (HCWs) are at risk for exposure... Maintaining immunity to vaccine-preventable diseases is an important preventive practice for HCWs.” BUOHC lacked a policy to ensure that clinical departments at BU were compliant with the preventive guidelines set forth by the aforementioned agencies.

Methods: I was charged with managing BUOHC's creation and ownership of a centralized policy to track initial and annual medical surveillance in order to ensure compliance. The scope of the project applied only to clinical departments on the Charles River Campus. Before creating the policy it was crucial that current practices were identified and stakeholders in HCW departments understood the importance surrounding a centralized system. I have met with almost all of the departments – ascertaining current processes, work flow and staffing configuration. I also laid the groundwork to win buy-in for the upcoming change. Immunization and surveillance requirements for the policy were based upon researched guidelines and consultations with Occupational Health specialists. Alternative tracking tools were explored with representatives from the current EMR vendor.

Results/Outcomes: The drafted policy is pending approval from all stakeholders. University HCWs have been defined to fall into three position type categories, which dictate the immunization/surveillance requirements. Further, benchmarking with like organizations regarding methods used to track compliance will aid the development of a new interactive tool to track initial and annual vaccinations, TB and respirator compliance.

HEALTH POLICY & MANAGEMENT

Name: Daniel Peaceman
Practicum Site: Veterans' Affairs Boston Health Care System
Location: Boston, MA
Title: Reducing Encounter Errors Across the VA Boston Healthcare System

Introduction: In order for a provider to properly capture their workload and for the medical center to be appropriately funded, providers must complete an encounter form along with their note. When errors are made, or fields are left incomplete, Clinical Application Coordinators (CACs) must work overtime to correct these errors at the end of the Fiscal Year (FY), increasing overtime wage costs to ensure accurate revenue capture. Throughout the year, the number of active encounter-errors plateaus around 2,000.

Methods: In this project, I formed the Engaged Encounter Error Work Group to take a deeper look into what trainings could be established. We looked for specific frequency data regarding the sources of these encounter errors. Once we found a few errors to target, we researched the nature of the topic. We then created training material, independent of the perspective of the CACs and service level managers. Training material was then reviewed by the aforementioned groups.

Results/Outcomes: We are on pace to begin training soon. We determined where we are going to pilot our trainings and initial champions. They both utilize visual and interactive learning, so we can best take advantage of our captive audience. Once these trainings prove successful, they will be implemented across the medical center while new trainings are developed. Eventually, we will establish a library of trainings, and each department can choose which trainings are specifically applicable. These trainings will help reduce the number of encounter errors by the end of the FY, and keep the errors low for future years.

Name: James Steinberg
Practicum Site: Dana Farber Cancer Institute—Department of Ambulatory Practice Management
Location: Boston, MA
Title: Graduate Student Summer Internship

Introduction: Dana-Farber Cancer Institute is a dedicated cancer center with a mission focused on innovative cancer research translated into a health balance of cutting-edge therapies and patient-centered care. This practicum took place in the Department of Ambulatory Practice Management, with a focus on leading a Lean-based process improvement project in an outpatient procedure suite. The project was initiated by the floor practice director in response to physician complaints regarding difficulty finding appointment slots for patients, and complaints by the suite providers that the suite was under-staffed.

Methods: I undertook a Lean-based approach with a scope inclusive of the administration, clinical staff, and schedulers for the procedure suite. The project began with an interview of all relevant stakeholders: the practice director, the nursing administrators, the suite providers and their clinical assistants, and the clinical schedulers. It was followed by live observation to produce a detailed process map for schedulers, clinical assistants, and providers, as well as activity utilization calculations. This was supplemented with Longitudinal Medical Record data for the preceding month, as well as Real Time Locating System data, for an exploratory analysis and descriptive statistics.

Results/Outcomes: The results identified that provider template errors, mis-identifications of primary procedure suite users, inefficient processes, poor communications, an overly complex scheduling process, and a disruptive clinical geographic layout were the root causes of the suite scheduling problems. Solutions have been identified, and are currently being negotiated with clinical and administrative leadership.

Name: Chining Wu
Practicum Site: PriceSpective
Location: Cambridge, MA
Title: Budget Impact Analysis of treatment of Metastatic Castrate-Resistant Prostate Cancer

Introduction: The 2010 Urological Association Guidelines for Management of Castrate-Resistant Prostate Cancer (CRPC) recommend docetaxel plus prednisone for first-line chemotherapy for symptomatic metastatic CRPC patients who have progressed from hormone therapy. Since 2010, several CRPC agents with better tolerability and longer survival have launched. These improved therapies are causing a shift in practice. The purpose of our analysis was to 1) quantify the 3-year mCRPC budget impact for the German health system based on the practice shift, and 2) estimate the cost per additional month of progression-free survival (PFS).

Methods: We developed a conceptual decision analytic model for the German health system to estimate the impact on direct medical costs of a therapy shift in CRPC over three years. For clinical efficacy data, we used duration of Progression Free Survival (PFS) to measure progression in therapy. For medical costs, we conducted a target literature search to identify US per-patient-per-month costs of docetaxel treated patients and applied a published purchase price parity factor to adapt to the German health system.

Results/Outcomes: From the German health system's perspective, a change in practice pattern will result in an increase in total budget of €23 million. The reduction in cost/month of PFS of €99/month indicates the shift in practice will use more efficient therapies.

HEALTH POLICY & MANAGEMENT

Name: Kamron Zia

Practicum Site: Mark Krueger & Associates, Inc.

Location: New York, NY

Title: Summer Associate

Introduction: Mark Krueger & Associates, Inc. (MK&A) is a health care consulting firm that serves as the leader in health care constituency relations. The firm's clients include major pharmaceutical and biotech companies. We focus on establishing and enhancing partnerships between our clients and the diverse patient, consumer, and professional groups that influence the success of their products and franchises and the reputations of their companies. Recently, a global pharmaceutical company discovered an important new indication for an established diabetes drug and asked MK&A to assist them in the launch surrounding the new indication of this product. We helped the client build mutually beneficial partnerships with patient, consumer, and professional groups.

Methods: To provide recommendations on how best to gauge and monitor internal and external stakeholder perceptions of the company's entry in a new drug indication and to suggest action steps to contain possible damage regarding reputation, MK&A assisted in: 1. Holding an internal workshop for the external relations board. 2. Completing desk research to document the perceptions of key stakeholders about the pharmaceutical treatment of the drug's new indication. 3. Conducting qualitative internal and external stakeholder interviews. 4. Presenting of findings, analysis, implications, and next steps.

Results/Outcomes: The client was able to prepare the market for the successful introduction of the drug for the treatment in the new indication, ensure the company is prepared for any issues and management challenges, and reinforce the company's standing as a science-based company that cares about the best interests of consumers, family members, and caregivers.

INTERNATIONAL HEALTH

Name: Alyssa Bechtold
Practicum Site: PeerCorps Trust Fund—Tanzania
Location: Nzega, Tanzania
Title: Injury Surveillance Intern

Introduction: The Nzega Injury Surveillance Project (NISP) is a pilot project designed to gather contextual data on injuries among patients admitted to the Nzega District Hospital in rural central Tanzania. Injuries, both intentional and unintentional, are an overlooked public health problem that contribute to a large proportion of deaths and morbidity in Tanzania. Injuries consume many resources, creating a large burden on hospitals in low resource settings. PeerCorps' Center for Injury Prevention and Community Safety (CIPCS) focuses on injury research that can shed light on this problem to encourage future prevention programs and policy changes.

Methods: I collected patient demographics and injury information from patients entering the hospital via a questionnaire from July 1-July 31. We analyzed the data using R and presented the preliminary results to the hospital staff, and discussed future prevention program possibilities.

Results/Outcomes: Among 100 people admitted for injuries, 31% sustained injuries due to a road traffic collision (violence-28%, falls-23%, other causes-15%, animal bites-3%). According to the physician's prognosis, 23.3% of road traffic injuries would result in a disability of 6 months or more. Twenty-five percent of patients injured due to violence were expected to stay in the hospital over 72 hours. These results underestimate the burden of injuries, because the study did not capture those who died directly on the scene and did not access the hospital. Future projects should make preventing road traffic collisions and violence their highest priority, because they place a large burden on the community and hospital.

Name: Alana Calise
Practicum Site: Boston University School of Public Health, Center for Global Health & Development—Zambia
Location: Livingstone, Zambia
Title: Program Evaluation of the Antiretroviral-Antenatal Care (ART/ANC) Integration Project and Rapid Syphilis Test (RST) Implementation Project

Introduction: As part of the ZCAHRD Boston University Prevention-of-Mother-to-Child Transmission (PMTCT) Integration Project team (BUPIP), for six months I assisted with evaluation and scale-up activities related to the ART/ANC Integration Project and RST Implementation Project. The goal of the ART/ANC Integration Project is to improve health outcomes for HIV-positive pregnant women and mothers, strengthen PMTCT efforts, and reduce HIV-related maternal and neonatal morbidity and mortality. The goal of the RST Implementation Project is to improve screening and treatment of syphilis infection in pregnant women to reduce the risk of a poor pregnancy outcome.

Methods: I worked with the ART/ANC team: 1.) to collect program evaluation data 2.) to scale-up ART services to four additional ANC clinics 3.) to train and certify health care workers on ART-related topics. 4.) to train and certify community lay counselors on ART-related topics. 5.) to remediate service delivery barriers. I worked with the RST team: 1.) to coordinate data collection logistics 2.) to collect program evaluation data 3.) to identify service delivery obstacles.

Results/Outcomes: Data collection took place at six ART/ANC pilot sites. Health care workers and lay counselors are trained and certified in ART-related topics. ART services are now integrated into four additional ANC clinics. ART/ANC integration data collection is ongoing. The team exceeded RST data collection goals under budget and before the deadline. RST implementation evaluation data analysis results are not yet available. The BUPIP team is hopeful that the ART/ANC and RST projects will successfully improve maternal and child health.

Name: Kristen Glauser
Practicum Site: Shining Hope for Communities
Location: Kibera, Nairobi, Kenya
Title: Fellow

Introduction: Shining Hope for Communities (SHOFCO) is an organization based in Kibera, the largest slum in Nairobi, Kenya. Kibera has no drivable roads, no sewage or drainage systems, very few government run schools or clinics, no government provided water access, very little security, and lacks basic services required to live a healthy lifestyle. SHOFCO utilizes an integrated approach to tackle each of these shortcomings in the community. The primary programs include an all girls free school, a 100,000L Chlorinated water tower, a free outpatient clinic, and other social services for the community.

Methods: For the duration of 8 months I worked on multiple clinical programs. I assisted in developing and implementing an electronic medical record system, OpenMRS. I managed the Prevention International: No Cervical Cancer (PINCC) team during two training visits to SHOFCO. I created the Kibera School for Girls Health Plan to ensure that all students receive regular check ups. I managed the Planned Parenthood YPP program combating sexual and reproductive health issues for youth in Kibera. Aside from clinical responsibilities, I planned local support strategies to build a larger Kenyan support network and I also worked on managing donor relations.

Results/Outcomes: With a team we designed, implemented and trained the staff on OpenMRS. The PINCC team certified multiple staff members for cervical cancer procedures. I developed a system to ensure each student at KSG receives a physical examination every school year. The Planned Parenthood program began implementation and the first M&E report was submitted prior to my departure.

INTERNATIONAL HEALTH

Name: Sabi Gurung

Practicum Site: Tufts University—Friedman School of Nutrition Science and Policy

Location: Boston , MA

Title: Research Intern

Introduction: The mission of the Nutrition Collaborative Research Support Program - Asia is to discover how policy and program interventions can most effectively achieve large-scale improvements in maternal and child Nutrition. It emphasizes operationally relevant research that can support national governments across Asia in their attempts to improve Nutrition, health, and agricultural productivity.

Methods: I extracted data from Demographic and Health Surveys (DHS) of year 2006 and 2011, to run quantitative analysis in SAS. The results from DHS analysis were compared to the results obtained from the current project that has been going for the last 2 years. I identified the positive and negative deviants of nutrition status of women and children in Nepal. Then, I analyzed to see if the association varies according to the three geographical regions and also if findings are similar between 21 Research Sites/ districts versus non research sites. Then I did a literature review on behavior change communication in Nepal to find what it empirically supported and what has not been documented. Second round of systematic review of the articles and select the articles based on the specific inclusion and exclusion criteria.

Results/Outcomes: The analysis found that majority of the factors affecting (positively or negatively) the nutritional outcomes and healthy habits in 21 research sites of the current project is similar to rest of the districts of Nepal. I analyzed the research sites that improved in nutritional outcome and those that performed low. After doing the systematic review of the articles, I selected 87 articles for further review and quantitative analysis.

Name: Megan Hawkes

Practicum Site: PharmAccess Foundation

Location: West Windhoek, Namibia

Title: Program Intern/Research Assistant

Introduction: There are extreme health disparities in Namibia due largely to the divide between the rich and the poor, the large landmass, difficult terrain and dispersed populations. The Mister Sister Mobile Primary Health Care Service through the development of a public private partnership offers primary healthcare services to remote and underserved populations in Namibia who would otherwise be unable to access quality healthcare easily at an affordable cost. To improve and expand health services, Mister Sister provides wellness screenings to obtain vital baseline measurements and information about healthcare access and healthcare seeking habits.

Methods: One of the core activities of my practicum included preparing and supervising a wellness screening at a local food factory that is located about 20 km from the capital. I was able to review and finalize protocols and surveys, work with enumerators and clinical staff to ensure all paperwork was completed adequately each day, serve as the general supervisor and representative for Mister Sister and promote the service to participants.

Results/Outcomes: There were 294 participants that attended the wellness screening over a 10 day period. The participants came from a variety of areas around the factory including many of the informal settlement regions that the clinic serves. The information gathered will be used by Mister Sister to improve services and identify areas where access to healthcare remains a problem. Mister Sister is also looking for more businesses to sign-up for clinic services and will use the wellness screening as the first step in that process.

Name: Danielle Hollenbeck-Pringle

Practicum Site: Boston University School of Public Health—Center for Global Health & Development

Location: Boston, MA

Title: Qualitative Research Assistant

Introduction: Men who have sex with men (MSM) in Ghana are highly stigmatized because male-to-male sex is traditionally viewed as illegal in Ghana. As such, MSM are a key, yet difficult to reach population. My work is a component of the MARP-Oriented New Innovations for Research (MONITOR) program. The study explores the vulnerability to HIV of older MSM in Kumasi, Ghana in order to improve the outreach and effectiveness of local programs.

Methods: 4 focus group discussions (FGD) and 20 in-depth interviews (IDI) were conducted. I worked with the lead investigator and research fellow to code, analyze and summarize transcripts using Nvivo 10. I was responsible for coding all FGDs and 10 IDIs. I drafted summary sections and discussion points, completed general editing, and participated in the monthly MONITOR meetings. Additionally, I worked on the dissemination of findings from an earlier study of younger MSM by designing a poster and PowerPoint.

Results/Outcomes: The findings reveal gaps in HIV knowledge and risky, overlapping behavior. Over half of IDI participants participate in transactional sex and/or drink alcohol. Most MSM drink to increase sexual pleasure. 84% of participants have had experience with condoms; however, only half are regular users. Most have a basic understanding of HIV/AIDS; although there are notable gaps in knowledge including of where to seek treatment and the belief that lubricant is a method of prevention. From the findings, ten recommendations on how to improve HIV prevention and treatment information and services were made for local programs.

INTERNATIONAL HEALTH

Name: Netzayet Jones
Practicum Site: EDCO Youth Alternative—High School Program
Location: Boston, MA
Title: Teen Health Pilot Class Instructor

Introduction: Every year in Boston EDCO Youth Alternative offers education, counseling, and social support services for its high school students. For the 2012-2013 school year a pilot class called Biomedical Science was launched. The aim was to expose students to health topics that are pertinent in their life while also emphasizing life skills. In turn, the students are able to make informed and independent life choices regarding their health.

Methods: Students were asked to free list health topics in which they were interested in learning more about. The most popular were compiled and a calendar was created to assign time to each topic. The topics chosen were: nutrition, fitness, drug and substance abuse, communications, teen dating violence, healthy/unhealthy relationships, reproductive health, sexual health, stressors, heart disease, and cancer. With literature research on adolescent health, and consulting with Boston Public Health Commission official, Nicole Daley, a curriculum was developed, and taught, consisting of discussion guides for the teacher and class assignments for students. In lieu of written exams, health communication projects were created such as PSAs on sexual health.

Results/Outcomes: Two focus groups were conducted with students in which we learned that they took the most from lessons when they felt free to speak openly about their behavior and ask questions. Topics stated as important in the beginning were still deemed important but students reported feeling much more informed after the class. The curriculum is to be used this fall to ensure an open and “adolescent friendly” health education is given.

Name: Andrea Kaschko
Practicum Site: Curamericas Global—Liberia
Location: Liberia
Title: Program Officer Intern

Introduction: Liberia's civil war devastated the country's infrastructure and health care system, resulting in unacceptably high maternal and child morbidity and mortality. Since 2008, Ganta United Methodist Hospital has worked in collaboration with Curamericas Global to implement the Nehnwaa Child Survival Project in Nimba County, Liberia. The goal of this project is to reduce child mortality by 60% through community-based programs that address the principal causes of death among mothers and children in Nimba County.

Methods: My main role as Program Officer Intern was to provide general programmatic support for the Nehnwaa Child Survival Project and associated sub-projects. I worked directly with the local staff at Ganta United Methodist Hospital to monitor progress on project work plans, develop tools for program implementation, conduct assessments of field activities, identify gaps and challenges in program implementation, and suggest recommendations for quality improvement.

Results/Outcomes: I developed a number of deliverables based on my discussions with the staff and my observations in the field. These deliverables include: spreadsheets and tracking documents for inventory of program supplies; visual algorithms outlining, step-by-step, the diagnosis and treatment of childhood diarrhea, acute respiratory infection and malaria for community health workers; and a final report identifying gaps and challenges in program implementation, including suggested recommendations and lessons learned. These tools can be used to improve program implementation both immediately and in the future.

Name: Kendra Keith
Practicum Site: Boston University School of Public Health—Center for Global Health and Development
Location: Southern Province, Zambia
Title: Scale Up and Pilot of SMS Based Infant and Maternal Health Interventions in Southern Province, Zambia

Introduction: ZCAHRD supports infant and maternal health in the Southern Province of Zambia in partnership with Boston University Center for Global Health & Development. The mHealth team advances interventions targeting: (1) early infant diagnosis by SMS delivery of HIV test results to rural clinics (Programme Mwana); (2) antenatal and postnatal visit compliance by SMS delivery of appointment reminders to community based agents (mUbumi Project); (3) emergency obstetric transportation by a SMS based referral system (mUbumi Project). Over six months, my aim was to support provincial scale up of Programme Mwana and preparation for the mUbumi pilot.

Methods: I organized field logistics, supervised master trainers, collected site assessments, and compiled summary reports for health facility, district lab, and district medical office (DMO) Programme Mwana trainings in Choma, Livingstone, and Gwembe district. In preparation for the Kalomo district mUbumi pilot, I organized field logistics, observed facility trainings, and assisted interviews regarding baseline obstetric emergency transportation.

Results/Outcomes: Across three districts, 240 health workers (62 health facilities), 12 lab workers (4 lab facilities), and 36 DMO staff (3 DMOs) were trained in Programme Mwana. To achieve province wide scale up and long term sustainability, implementation of technical support visits, district ownership, and trainings in remaining districts are needed. In preparation for the Kalomo district mUbumi pilot, 65 community agents, 21 health workers, 5 ambulance drivers, and 8 data clerks were trained (9 facilities). Interviews were collected and transcribed (4 facilities) from 9 community agent, 33 expecting mother, and 4 health workers with results pending.

INTERNATIONAL HEALTH

Name: Sarah King

Practicum Site: Save the Children

Location: Washington D.C.

Title: Emergency Health and Nutrition Intern

Introduction: Save the Children is an international organization which provides rapid humanitarian assistance and long-term development programming with an emphasis on meeting the needs of children. The organization's Emergency Health and Nutrition Team focuses on international acute and chronic emergencies. The US based team specializes on reproductive health and nutrition programming. During my practicum, I provided support to this team.

Methods: A number of projects were assigned to me during my time with the organization. The projects required me to complete the following activities: literary reviews, updating and reviewing program toolkits, collaborating with staff in multiple country offices, writing briefers, and tracking grants and awards. Each activity and project allowed for the team to be more effective and productive in the field.

Results/Outcomes: Of the projects I completed, three will have the most impact. 1) A database of the current emergency nutrition programs gives the organization a clear picture of where their resources are being used, what type of programming is funded, and how many individuals are benefiting from the programs. 2) A nutrition product catalogue provides a detailed list of items needed for supplementary feeding programs, outpatient therapeutic programs, and targeted supplementary feeding programs. It will guide teams in the field who are looking to start up emergency feeding programs. 3) A post-abortion care fact sheet is currently used by staff in the Democratic Republic of the Congo to educate health care providers on the benefits of providing post-abortion care to women in their communities.

Name: Luca Koritsanszky

Practicum Site: Boston University School of Public Health—Center for Global Health and Development

Location: Ethiopia

Title: Research Assistant

Introduction: I spent 7 weeks as a team member for a Center for Global Health and Development (CGHD) study in Ethiopia. The study is a longitudinal cohort study of 60 NGOs serving highly vulnerable children in Ethiopia which examines the linkages between changes in NGO capacity, organizational performance and child health outcomes. The purpose of this practicum was to assist in the second round of data collection.

Methods: I worked with the Principle Investigator and the assessment team: 1) to conduct a series of on-site organizational development assessments using a CGHD developed tool called MODE (Measuring Organization Development and Effectiveness), in Addis Ababa, as well as traveling to North and Southern Ethiopia for branch office assessments; 2) to engage in data entry and data analysis using CSPro5.0 and SAS; 3) to compose an organization development report detailing the strengths and weaknesses of each NGO, as well as describe changes in score from 2012 findings.

Results/Outcomes: Round 2 data for all NGOs was collected by the team. I wrote and submitted reports for all NGOs I assessed including data analysis and recommendations for further improvement.

Name: Dana Longobardi

Practicum Site: Planned Parenthood Association of Ghana

Location: Cape Coast, Ghana

Title: Program Development Intern

Introduction: Under International Planned Parenthood Federation (IPPF), Planned Parenthood Association of Ghana (PPAG) promotes sexual and reproductive health (SRH) access, education and rights among the women, men and youth. Health indicators in Cape Coast and the Central Region of Ghana tend to be worse than national indicators. To address some of these poor health outcomes, PPAG Cape Coast has a community outreach and development office which partners with the clinic to provide public education and to coordinate outreach programs in support of clinical services.

Methods: From January to June, 2013, I worked in PPAG's community outreach department in Cape Coast, Ghana. I was responsible for three main projects: increasing PPAG's capacity of antenatal care (ANC) programs, strengthening existing prevention of mother to child transmission (PMTCT) of HIV programs, and building male participation in SRH services. I worked independently and along side the community outreach team to develop new programs and strengthen existing ones using culturally relevant, evidence based material.

Results/Outcomes: By the end of my internship I provided PPAG Cape Coast with a series of power point presentations to be used for ANC classes during maternity clinic days where as many as pregnant women wait to see a doctor. At the time of my departure, over 85 women had attended at least one ANC session. I also developed a program for a mobile PMTCT clinic and began applying for grants. Finally, I developed a comprehensive men's health program to be used in conjunction with male clinic days.

INTERNATIONAL HEALTH

Name: Na Lu

Practicum Site: Boston University School of Public Health—Center for Global Health and Development

Location: Addis Ababa, Ethiopia

Title: Research Assistant

Introduction: The Ethiopia Project at the CGHD develops and assesses the use of a tool to evaluate organizational development in a number of NGOs focusing on highly vulnerable children in Ethiopia. The project also fosters relationships with NGOs in Ethiopia and provides them with consultation to improve in 11 specified domains to aid in building capacity and efficiency.

Methods: I worked with the Ethiopia study team during the Spring and Summer semesters, both in Boston and in Addis Ababa, Ethiopia. In Boston, I assisted the team in producing reports to stakeholders, focusing on analyzing data from round one sampling. Also I attended biweekly meetings and a training week in June to prepare for travel to Ethiopia in July. When in country, I traveled with other researchers in groups of two to participating NGOs and collected data using the Organizational Development tool. I was also responsible for data entry, analysis and report on the findings to the NGOs.

Results/Outcomes: In Boston, I modified dataset, calculated indicators and created tables to summarize findings for the baseline assessment. The data tables were incorporated into the final report to project donors: Geneva Global and Legatum foundation. In country I've conducted more than 10 assessment and completed organizational development data sheets for the NGOs I interviewed. I also generated 7 feedback reports including recommendations for the participating NGOs to help them further improve their capacity.

Name: Jessica Miller

Practicum Site: Boston University School of Medicine—Department of Family Medicine

Location: Boston, MA

Title: Evaluator, Master of Family Medicine Training program in Laos

Introduction: The Lao PDR maintains some of the lowest health indicators across the globe. The delivery of primary health care services to the rural and poor is considered one of the most important areas of national health planning in Lao PDR. In order to improve the primary health care system of Laos at the community level, a project led by the Boston University Family Medicine Global Health Collaborative, in partnership with the Laos University of Health Sciences, developed and implemented a curriculum and master's training program for training general doctors as specialists in Family Medicine. The first class of trainees is scheduled to graduate from the program in September of 2013. As part of the overall evaluation strategy for the program, an assessment of the clinical competency of the graduates and their satisfaction as well as that of key stakeholders was essential for quality improvement.

Methods: In coordination with program staff, I: 1) developed an evaluation plan; 2) prepared the data collection tools (interview guides, surveys, etc.); 3) applied for and obtained IRB approval 4) traveled to Laos to collect data, and 5) wrote a preliminary findings report.

Results/Outcomes: The evaluation plan and tools were successfully developed, approved by the IRB, and data collection completed. The results of this evaluation will help to inform the continuing design and development of the part-time Family Medicine training curriculum and program in Laos.

Name: Ashley Miller

Practicum Site: Boston University School of Public Health—Center for Global Health and Development

Location: Addis Ababa, Ethiopia

Title: Student Researcher

Introduction: The goal of the Ethiopia Project at the Center for Global Health and Development (CGHD) is to develop and assess the use of the Measuring Organizational Development Evaluation (MODE) tool in evaluating organizational development for 44 NGOs serving highly vulnerable children (HVC). The project provides these organizations with consultation to improve in 11 specified domains, to aid in building capacity for organization and efficiency.

Methods: As part of a team of student researchers, I traveled to 11 participating NGOs in Ethiopia to conduct assessments using the MODE tool. Following daily assessments, our team completed data entry and analysis using CPro, SAS, and Excel, and produced reports for the NGOs comparing results from our analysis with those of the 2012 assessment. We then provided guidance on next steps to improve organizational management.

Results/Outcomes: Preliminary results based on the NGO reports indicate that the many of the NGOs increased in their overall score from 2012 to 2013. Among the surveyed NGOs, management of information and financial security were high priority domains requiring further development. NGO staff were mindful of weaknesses identified in the report but limited resources constrained their ability to make recommended improvements. Several NGO directors reported finding the assessments to be a useful exercise and made changes within their organization after receiving initial results from the 2012 assessment.

INTERNATIONAL HEALTH

Name: Tej Mishra

Practicum Site: Creative Consulting and Development Works

Location: Cape Town, South Africa

Title: Research Intern

Introduction: Established in 2003, Creative Consulting and Development Works (CCDW) is a consulting firm in Cape Town, South Africa. Its consulting projects range from Public health to agriculture, education, communication and Human and Women Rights works. "If I could..." internship is a program of CCDW where international students are placed in local organization of student's interest.

Methods: As an intern at the CCDW, I worked in projects in various fields- health research, agriculture, substance abuse. I participated in literature review and in developing methodologies for research. I was equally engaged in designing tools and instruments aligning them with the methodology. I took the responsibility of getting together necessary documents for submitting completed proposals. Besides, I also had opportunities to attend seminars at the University of Cape Town-School of Public, parliamentary sessions in health care and political debates; I also worked with communication intern designing info-graphics.

Results/Outcomes: I actively participated in developing methodologies and tools for three projects. One sought to evaluate practice of ethics in research and the other evaluated substance abuse programs in Cape Town. Another project that I worked with looked at identifying causes of disputes between farm owners and farmers. Through the literature review, tools designing and other task I did with these projects of CCDW, I broadened my knowledge of public health and other phenomena that shape the industry. This practicum gave me an opportunity to understand the socio-economic, political and other dynamics that shape South African society.

Name: Taiwo Odusanya

Practicum Site: FACE Africa

Location: Cambridge, MA

Title: Intern, Qualitative and Quantitative Development

Introduction: FACE Africa, founded by Saran Kaba Jones in 2009, is a clean water and sanitation organization that works primarily in marginalized rural communities of Liberia provide clean, safe drinking water for every individual living in Liberia. It has worked in 14 towns and currently has ongoing projects in four towns. Some projects include building communal latrines, drilled wells and hand-dug wells. Based in Cambridge, Massachusetts FACE Africa keeps in constant communication with partners in Liberia and makes multiple trips to sites.

Methods: There was a need for evaluating the efficacy of their projects. We came up with monitoring indicators that were budget and 'man power' friendly for the size of the organization. The indicators were Nutritional changes in children, diarrheal incidences in children to assess water quality and hand-washing techniques to assess the efficacy of the water committee's educational outreach. We decided upon Sengbloh Town as the pilot site due to: marginalized town with little NGO interference, Saran's extensive contacts in the community and its small size.

Results/Outcomes: To assess nutritional changes in children, we used Mid-Upper Arm Circumference tools for its ease of administration and production; hand-washing techniques, we had two separate surveys—one for households and another for communal focus groups to assess their current sanitation practices and perceptions of hygiene. The household survey questions ranged from: hand-washing practices to diarrheal incidences to practices of the main food preparer. The focus group surveys focused communal opinion on: open defecation, preferred locations for hand washing stations and health consequences of poor sanitation. We are developing an observational 'point system' in evaluating hand-washing techniques.

Name: Gloria Roberts

Practicum Site: Elizabethton Carter County Emergency Management Agency

Location: Elizabethton, TN

Title: Intern

Introduction: The Elizabethton Carter County Emergency Management Agency (ECCEMA) coordinates disaster prevention, mitigation, preparedness, response, and recovery for Carter County in East Tennessee. ECCEMA is a rural emergency management agency serving over 56,000 people. 22% of residents fall below the poverty line; 18.5% of residents are 65 and older. Low income and elderly populations in rural areas are especially vulnerable in disasters, making ECCEMA's work an important public health service.

Methods: My work focused on preparedness, risk assessment, and understanding EMA operations. I completed Incident Command System (ICS) FEMA courses ICS100, IS-453, IS-660, IS-700.a and reviewed county preparedness plans (e.g. Point of Dispersion plans). I participated in approx. 18 damage assessments and shadowed during a highway HAZMAT incident. I led a presentation on preparedness for 15 children and wrote the 2013 grant application to the East Tennessee Foundation. I attended weekly planning meetings with the American Red Cross, TEMA, the Northeast Regional Health Office, and first responders.

Results/Outcomes: Preparedness planning (plan, test, re-work, practice) is applicable to public health intervention planning. Public health workers should understand emergency management basics (ICS) and the role of public health in a range of disasters. Emergency response is intra-jurisdictional. Partnerships between emergency management, law enforcement, and environmental and public health should exist well before disaster hits. In areas with limited state and federal funding, partnerships result in resource and information sharing.

INTERNATIONAL HEALTH

Name: Carly Rodriguez
Practicum Site: Partners In Health
Location: Boston, MA
Title: RESIST-TB Intern

Introduction: RESIST-TB, an initiative of Partners in Health, aims to close gaps in the knowledge of drug-resistant tuberculosis (DR-TB) through promoting and conducting research on the treatment and prevention of DR-TB. The objective of this practicum was to provide research support on the projects of the initiative. I facilitated the development of a publication focusing on major priorities in diagnostics, treatment and the programmatic management of DR-TB. I assisted in the development of an expanded access protocol, which evaluated new regimens for use in DR-TB.

Methods: My involvement in the development of a publication provided me with experience in conducting literature reviews and coordinating an international team writing project. I compiled reviews from the team I worked with, disseminated materials to external review teams and facilitated the drafting of the document. These activities directly organized the efforts of the teams while providing me with a thorough understanding of the research topic. My participation in the expanded access protocol project provided me with an understanding of the process of designing and seeking approval for a clinical trial. I was largely involved in coordinating the efforts of the team through communication support.

Results/Outcomes: The research agenda is expected to be submitted for publication at the end of the year. This publication will serve as a valuable resource. The protocol is expected to continue development, pending FDA approval of one of the drugs in the regimen for clinical trial use. If successful, the regimen could potentially treat DR-TB patients who have exhausted their treatment options.

Name: Michael Roxas
Practicum Site: Boston Medical Center—Department of Family Medicine
Location: Boston, MA
Title: Back to Health Research Assistant

Introduction: Back to Health is federally funded research study at the Department of Family Medicine at Boston Medical Center. The study aims to compare the effectiveness of yoga, physical therapy (PT), and health education for chronic low back pain. Within the research team, I assisted in data collection and recruitment; my project within the study looked into the relationship between immigration status and mental health among the study participants.

Methods: I worked with the research coordinator to 1) administer and collect the data during baseline survey 2) enter data and assist the data research assistant in cleaning the data 3) perform univariate and multivariate analysis with SAS to determine the strength of the relationship between immigration status and mental health. To assess mental health the Generalized Anxiety Disorder item-7 (GAD-7) and a modified Patient Health Questionnaire (PHQ-8) was used.

Results/Outcomes: Data from 81 participants was collected and being entered. Analyses of the associations between immigrant status and mental health, controlling for BMI, alcohol and smoking status will be presented, which will occur within the week of April 15 to April 21. Findings will highlight the need to increase immigrant access to mental health services. As the study progresses, an assessment of mental health improvement with participants involvement in treatment various treatment groups can be performed.

Name: Kelly Salance
Practicum Site: Massachusetts Department of Health and Human Services
Location: Peabody, MA
Title: Local Public Health Intern

Introduction: The Peabody Health Department promotes the health and well-being of residents of Peabody. As an integral part of the community, the Peabody Health Department was lacking an online and social media presence, which could be used to reach more community members in different demographics within Peabody. The purpose of my practicum was to create up-to-date social media outlets to increase information sharing and community awareness at minimal costs.

Methods: Research was done to analyze relevant issues to the community of Peabody. The next step was to develop a database of seasonal educational posts to be utilized throughout the year on the social media sites. This database serves as a template to create updates for efficient information sharing. Once the site was functional, the final phase was to reach out to local connections to increase awareness and community engagement.

Results/Outcomes: In today's fast-paced world, having an online presence allows the Peabody Health Department to efficiently relay information. The project is still in the beginning stages but there are an increasing number of followers to the page weekly. The projected outcome of the project is to have the Peabody Health Department's social media page effectively engaging with the community of Peabody to extend their reach and increase information sharing. The project is a strong tool for increased communication, advocacy and education in Peabody.

MATERNAL & CHILD HEALTH

Name: Katherine Atcheson

Practicum Site: NARAL Pro-Choice Massachusetts

Location: Boston, MA

Title: Organizing and Outreach Around Reproductive Rights in Massachusetts

Introduction: NARAL Pro-Choice Massachusetts is the political arm of the pro-choice movement in Massachusetts, and advocates for pro-choice legislation, endorse pro-choice politicians, and organizes Massachusetts communities around political issues pertaining to reproductive choice and women's health issues.

Methods: This summer, our first main goal was to reach out to other organizations in Boston to create a platform based on issues facing Boston women for the upcoming mayoral race. The other goal was kicking off NARAL's Certified Truth campaign, which focuses on raising awareness about crisis pregnancy centers' deceptive advertising towards women facing unplanned pregnancies. We met with workers from various shelters and women's organizations throughout the city, to discuss the most prominent problems women face in Boston, particularly low-income women and women of color to create a platform. To raise awareness of CPCs we primarily engaged in street canvassing, asking people to sign a petition to regulate CPC advertising and distributing pamphlets to raise awareness about their practices.

Results/Outcomes: At the end of the summer, we had established the two most pressing issues for women in Boston were difficulty finding safe, affordable housing and domestic violence, and we started bringing together the organization in roundtable discussions to draft the platform. We got over one thousand signatures on our petition, raising awareness about CPCs and I was also able to write copy for the campaign website. The practicum also allowed me to learn the basics of healthcare organizing and advocacy, as well as learning about the politics of health policy and legislation.

Name: Ashley Belton

Practicum Site: Slone Epidemiology Center—Black Women's Health Study

Location: Boston, MA

Title: Summer Intern

Introduction: The Black Women's Health Study (BWHS) at the Slone Epidemiology Center is a public health research organization. The BWHS is a large cohort study tracking the health of 59,000 African-American women living throughout the United States. The study requires participants to complete a postal biennial questionnaire in order to determine the incidence of cancers and other diseases. The study analyzes socioeconomic status, diet, physical activity, racism, and genetics specific to African American women in order to clarify the relationship between diseases and mortalities. My main task was to assist in all aspects of obtaining breast cancer supplemental questionnaires about treatments received.

Methods: I reviewed reported cases of breast cancer on the BWHS questionnaires, mailed surveys to selected breast cancer cases, processed all incoming breast cancer supplemental questionnaires, scanned and verified the breast cancer supplemental questionnaires, and conducted quality control measures on all collected data. I analyzed a sample of 50 participant questionnaire responses comparing treatment types and participant answers to existing medical records. I also evaluated demographic characteristics for responders, non-responders, and the biennial and breast cancer supplemental questionnaire responders.

Results/Outcomes: Although the participant responses to surveys are ongoing, over the course of my practicum I mailed 750 surveys to participants, and received a 50% return rate, of about 220 participants. From the sample of 50 surveys all participants reported receiving breast surgery and 32% reported receiving breast surgery, hormonal therapy, and chemotherapy. The demographic characteristics for the three types of responder groups were similar with few differences.

Name: Libby Brubaker

Practicum Site: Boston Medical Center—Department of Obstetrics and Gynecology

Location: Boston, MA

Title: The Centering Pregnancy Prenatal Care Program

Introduction: Centering Pregnancy is a group-style prenatal care program offered at Boston Medical Center. Grouped by gestational age, 10-15 pregnant women of diverse backgrounds gather to learn, share, and support each other during pregnancy. Patients complete surveys throughout their prenatal care, providing information on pregnancy behaviors and birth outcomes.

Methods: In addition to facilitating prenatal care sessions and offering logistical support to the Nurse Midwife/Obstetrician, I conducted an independent research project which considered depression and the level of social support experienced by our patients. I administered and entered patient surveys into our database and analyzed our data. The purpose of my project was to demonstrate some of the benefits of Centering Pregnancy for a report to the attorney general.

Results/Outcomes: Full disclosure of my results is not permitted, however my findings have significant implications for the health status of Centering Pregnancy patients and their babies. Throughout their prenatal care, the women in my groups actively engaged in group discussions, attended sessions regularly, and expressed to me their satisfaction with the care they had received in Centering Pregnancy. These characteristics are likely important for Centering Pregnancy patients, who may be at greater risk for adverse birth outcomes due to demographic variables.

MATERNAL & CHILD HEALTH

Name: KyMBERly Byrd

Practicum Site: AIDS Action Committee of Massachusetts

Location: Roxbury, MA

Title: Intern, Health Information and Training/Program Evaluation

Introduction: Research continues to show that antiretroviral treatment is the key to combating the HIV epidemic. Consequently, the National HIV Strategy is focused on identifying new infections, linking infected individuals to treatment, and retaining those individuals in care. It also emphasizes outcomes monitoring using biomarkers. This emphasis on outcomes monitoring poses a challenge for AIDS service organizations, where many staff members have little to no experience with data capturing. At AIDS Action Committee, Program Directors have been tasked with demonstrating the importance of data collection and familiarizing staff with data management systems. Similarly, these individuals recognized the need for capacity building at their organization. Quality improvement requires assessment tools for new staff, which help to identify gaps in knowledge. With limited time and competing priorities, the implementation of a virtual training tool was essential.

Methods: I worked with the Director of Health Information and Training and the Program Evaluation Manager to 1) create three program specific reference manuals for data collection and reporting of program outputs; 2.) conduct an environmental scan of online training resources; and 3.) develop Hepatitis C and HIV virtual training tools.

Results/Outcomes: The training resources and reference manuals will serve as valuable contributions to programmatic success at AIDS Action. The training resources will enhance consistency, quality, and sustainability, and the reference manuals will strengthen monitoring and evaluation at the organization. As AIDS Action Committee evolves to fit the changing landscape of HIV, these components are essential to the sustainability of the organization.

Name: Jessica Ensenberger

Practicum Site: Massachusetts Alliance on Teen Pregnancy—Public Policy

Location: Boston, MA

Title: Public Policy Intern

Introduction: As a part of the Public Policy Department of the Massachusetts Alliance on Teen Pregnancy, I was involved in the development of the organization's Living on the Edge III report. Based on research that the Alliance conducted over the past year, this report details the struggles of homeless expectant and parenting teens in Massachusetts with special attention to the prevalence of traumatic experiences among this population. In addition to other tasks, my main project aimed to further the organization's knowledge of Trauma-Informed Care (TIC) and inform their policy recommendations for homeless young families through the creation of a literature review on the best practices for treating traumatized homeless teen parents.

Methods: I supported the Public Policy Director by: 1) brainstorming policy priorities and framing strategies; 2) drafting advocacy letters and legislative testimony on bills and budget items pertaining to homeless youth; 3) editing and contributing to the development of the Living on the Edge III report; 4) researching an e-mail advocacy tool to increase youth involvement in policy advocacy, and 5) conducting a literature review on treatment for homeless, traumatized young parents.

Results/Outcomes: The Alliance will draft new policy recommendations informed by the latest research on homeless teen parents and understand where gaps in information exist in order to strategically plan their next research endeavors. The organization will also institute new advocacy strategies through the use of e-mail and social media programs.

Name: Siobhan Gruschow

Practicum Site: Massachusetts Department of Public Health—Sexual Assault Prevention and Survivor Services

Location: Boston, MA

Title: Coordinator of Sexual and Domestic Violence Prevention and Intervention Higher Education Working Group

Introduction: The mission of Sexual Assault Prevention and Survivor Services (SAPSS) is to 'change social norms that foster sexual violence, to encourage a climate where sexual assault is not tolerated, and to promote and enhance effective and accessible services for all survivors of sexual assault.' To accomplish this mission, SAPSS advocates statewide for the development of sexual assault policies and programs, provides technical assistance to agencies working to end sexual violence and provides services to survivors in the state, collects and analyzes data on sexual assault, and fosters collaboration with state and community organizations. In collaboration with the Governor's Council to Address Sexual Assault & Domestic Violence, the department is creating a state wide initiative to ending violence on college campuses.

Methods: I contacted all higher education institutions in the state of Massachusetts, collected and compiled information from each institution on current "best" and "promising" practices for responding to and preventing sexual and domestic violence. I administered and analyzed survey data, presenting this data to the higher education working group.

Results/Outcomes: Out of 140 institutions contacted, 67 institutions provided a primary contact, with 55 surveys completed. 82.7% of the institutions had specific policies or protocol currently in place to respond to sexual and domestic violence; however, most of the institutions wanted more information on 1) bystander education; 2) grant/funding opportunities; 3) more effective procedures and policies on responding to incidences of sexual and domestic violence. This information is being used to develop the content for the trainings in September.

MATERNAL & CHILD HEALTH

Name: Lisa Kelly
Practicum Site: Natick Board of Health
Location: Natick, MA
Title: Local Public Health Intern

Introduction: The Natick Health Department is utilizing two regional approaches to address recent trends in tobacco use and its outdated town emergency plans. First, Natick is starting a regional coalition aimed to decrease tobacco use and the incidence of its related diseases among Metro West residents, with a specific emphasis on youth. Second, Natick updated its emergency dispensing site (EDS) plans and shelter plans using Region 4A guidelines.

Methods: In drafting the grant proposal, I reviewed tobacco regulations from surrounding communities in comparison with recent trends and evidence-based strategies regarding youth and tobacco use. Additionally, I created a budget justification for the proposed coalition. To update the EDS and shelter plans, I met a representative from the state's Regional Emergency Preparedness Committee to discuss necessary changes. With those recommendations, I added information regarding site details, incident command charts and memorandums of understanding with community partners to the plans. Lastly, I updated the Natick website with information regarding family emergency preparedness.

Results/Outcomes: Natick is preparing to submit the grant proposal in August and will await approval for funding. Once initiated, the tobacco coalition's regional approach to standardizing and strengthening regulations regarding the purchase of tobacco products can have promising effects on decreasing tobacco use and related disease rates. Alternatively, updating Natick's emergency preparedness plans will improve the organization of resources and communication between local officials during emergencies. Natick residents can also assist with emergency preparedness by becoming better prepared at home through the new resources available online.

Name: Alyssa Kratze
Practicum Site: Boston Children's Hospital—Developmental Medicine Center
Location: Boston, MA
Title: Intern

Introduction: The goal of the Autism Friendly Initiative is to improve the quality of service delivery for children with autism and other neurodevelopmental disabilities. The Developmental Medicine Center collaborates with other departments throughout the hospital, including neurology, child life, speech, psychiatry, and Center for Families to implement the Autism Friendly Initiative. I am assisting in planning and research for this project.

Methods: Through outreach to other children's hospitals, I researched current initiatives and made suggestions for implementation at Boston Children's Hospital. There are still ongoing discussions regarding collaboration between hospitals for eventually presenting and writing about the need for similar initiatives at other hospitals. I conducted a literature review for best practices regarding providing services to children with autism and other neurodevelopmental disabilities, and researched possible grant opportunities for funding. I also completed a draft of a page of the Developmental Medicine Center's website that will help families prepare for upcoming visits and contain links to social stories. I also prepared presentations regarding activities that other hospitals are implementing to begin the discussion about additional activities that can be implemented through Boston Children's Hospital's Autism Friendly Initiative.

Results/Outcomes: The Autism Friendly Initiative is still in the planning stages. Decisions are being made regarding which departments to train, which grants to apply for, how to best utilize the social stories, and deepen the program's understanding of the unmet service needs of children with autism and other neurodevelopmental disabilities at the hospital.

Name: Molly Lawney
Practicum Site: Boston Medical Center—Department of Obstetrics and Gynecology
Location: Boston, MA
Title: Centering Pregnancy Intern

Introduction: This practicum involved assisting with data collection and analysis for the Centering Pregnancy Program: an alternative model of prenatal care that combines standard health assessments with health education and social support. Rather than attending individual, twenty minute appointments with a care provider, Centering Pregnancy patients attend a two hour session with a provider in a group of eight to twelve women. This approach to prenatal care empowers women by teaching them self-care, provides more time for questions and discussion, and creates a support network among women of similar gestational ages.

Methods: I had the exciting opportunity of assisting at Centering sessions while pregnant, which allowed me to participate in discussion and relate personally with the women in the group. I delivered my baby slightly before the other women, so I was able to share my birth story and advice. In addition, I assisted with set-up, tracked attendance and coded loss to follow-up, and administered surveys to group participants for research purposes. Research assistant duties included data entry, data extraction, and a side-project examining breastfeeding rates among Centering participants.

Results/Outcomes: Completion of this practicum will result in 1) Centering and Standard Care patient data extracted and organized in Excel sheets for analysis; 2) surveys completed and survey data entered into the appropriate database for the June-July Centering group; 3) breastfeeding rates among Centering participants analyzed, and compared to BMC Standard Care patients and PRAMS data; 4) a paragraph summarizing breastfeeding analysis for use in grant proposals or publication.

MATERNAL & CHILD HEALTH

Name: Anna Mak

Practicum Site: Dana Farber Medical Institute—Medical Oncology

Location: Boston, MA

Title: Medical Oncology Student Intern

Introduction: Dana Farber institute, founded in 1947, has since been committed to providing the best treatment and care to individuals with cancer across all ages. As a Harvard Medical School affiliate and a designated Comprehensive Cancer Center by the National Cancer Institute, Dana Farber Institute is deeply invested in its vision to eradicate cancer, AIDS, and related diseases along with the associated fear through training the newest generation of providers and through creating new public health programs targeting high-risk underserved populations. As the Student Financial Intern for the Medical Oncology department within Dana Farber Cancer Institute, the goal of my practicum was to provide support in creating departmental budgets and learning clinical and research related financial operations.

Methods: To meet this goal, I worked directly with the Financial Managers of Medical Oncology Hematologic Malignancies to review expenditures, submit payments accordingly and was exposed to the intricate process of managing financial accounts. Through participation in weekly multi-departmental meetings, I was also exposed to reviews of overall institutional budgets. More specifically, I learned to process and track large scale invoices, generate purchase orders and to track personnel distribution of effort which affects budgets with multiple pay centers involved.

Results/Outcomes: The activities in which I participated not only contributed to the overall departmental need for administrative support, but I also acted as a resource to provide added input for the budget process as well as learning the policies and procedures of how a business office within a institute such as Dana Farber operates.

Name: Alicia Orta

Practicum Site: Boston University School of Public Health

Location: Boston, MA

Title: Public Health Measures in the Ghettos During the Holocaust

Introduction: Throughout the Holocaust, Jewish healthcare professionals sought a public health response in the ghettos, yet information pertaining to their impact is lacking. This research, to be comprised as a collection of Jewish healthcare professionals' narratives in an upcoming book, has allowed me to explore the relationship between human rights and public health by examining the ethical dilemmas faced by Jewish healthcare professionals in historical context, explore the meaning of human rights and health during situations of scarcity, racism, and war, and analyze case studies that illuminate the potential methods of promoting public health on national and international levels.

Methods: Upon performing a comprehensive literature search using libraries, databases, dissertations, scholarly journals, and recently published memoirs, I collected and annotated sources pertaining to the public health response of ethical dilemmas that Jewish healthcare professionals faced in the ghettos during the Holocaust. Topics included eugenics, racial hygiene, social Darwinism and state-prescribed reproductive policies. Additionally, my responsibilities for the book compilation were editorial, specifically in areas of design, organization, and cohesion.

Results/Outcomes: The book proposal was accepted and permissions were acquired from the various authors. Secondly, a paper is in progress providing information on reproductive health measures in the ghettos during the Holocaust, specifically the contemporary implications of sterilization, eugenics, euthanasia, and its impact on modern public health practice. This work will help maintain the relevance of the dilemmas posed during the Holocaust while aiding the better understanding of the implications and importance of human rights to health.

Name: Laura Parker

Practicum Site: Insititue for Health & Recovery—Family Recovery Project

Location: Holyoke, MA

Title: Intern

Introduction: Opiate addicted pregnant women in a Medicated Assisted Treatment (MAT) recovery program are more likely to have a healthier pregnancy, birth and baby as compared with opiate dependent pregnant women who continue to use or who quit cold turkey. However, for opiate dependent pregnant women in western Massachusetts, there is a lack of adequate, available information communicating the benefits and risks of MAT. The purpose and scope of the practicum was to address the lack of information by creating a parent information packet to convey how to have a healthy pregnancy and birth; safety of MAT; Neonatal Abstinence Syndrome (NAS); and provide helpful, essential resources.

Methods: Various activities conducted in the work included: research, writing, editing, synthesizing information, attending committee meetings, website design, and conducting focus groups. The activities provided concise, sound information on best practices and methods for pregnant women in MAT.

Results/Outcomes: The parent information packet is ready for focus group trial. The focus groups will be comprised of pregnant women in MAT in Holyoke, MA. It is expected that the women and families receiving the information will gain knowledge and confidence. Increasing information and knowledge may improve pregnancy and birth outcomes among opiate addicted pregnant women in western Massachusetts. If the packet is found to be useful, the packet could be reproduced and used in hospitals and recovery programs across the state.

MATERNAL & CHILD HEALTH

Name: Kayley Pettoruto

Practicum Site: Massachusetts Department of Public Health—Bureau of Family Health and Nutrition

Location: Boston, MA

Title: Graduate Student Epidemiology Intern

Introduction: Objectives were to assess the relationship between participation in WIC and maternal health outcomes; and to identify demographic characteristics of women who are eligible but not enrolled in WIC.

Methods: I conducted a case control study of 2600 Massachusetts women with incomes at or below 185% of the federal poverty line (FPL) who were included in PRAMS data in 2007-2010. Using bivariate analysis and odds ratio, I examined differences between WIC participants (N=2118) and eligible nonparticipants (N=488) on race/Hispanic ethnicity, age, nativity, income, insurance type, pre-pregnancy BMI, domestic violence, self-assessment of health, adequacy of prenatal care, birth control, exercise, fruit and vegetable consumption, breastfeeding, dental care, smoking, postpartum depression symptoms, infant sleep position, disability status, and postpartum check-up.

Results/Outcomes: WIC participants were more likely to use postpartum birth control (OR=1.83, CI=1.14, 2.93) and receive a postpartum teeth cleaning (OR=1.74, CI=1.23, 2.45), compared to eligible nonparticipants. Eligible nonparticipants were more likely to be white, non-Hispanic (OR=2.12, CI=1.13, 3.99), a college graduate (OR=3.16, CI=1.81, 5.52), have private health insurance (OR=4.98, CI=3.37, 7.35), and have an income above 100% FPL (OR=2.06, CI=1.51, 2.80). No other results were significant. WIC participation during pregnancy benefits low income women as early as 2-6 months postpartum in the domains of contraception and dental care. Women who are more educated, have a higher, but still eligible income level per household size, have private health insurances and are non-Hispanic, white are less likely to enroll in WIC and could be a target for outreach.

Name: Ridhima Sharma

Practicum Site: Boston Public Health Commission—Bureau for Child, Adolescent, and Family Health

Location: Boston, MA

Title: Perinatal Consortium Intern

Introduction: One of the goals of BPHC is to reduce the low birth-weight (LBW) rate among Boston infants and decrease the gap between the White and Black LBW rate, a leading cause for infant mortality. The mission of the Bureau for Child, Adolescent, and Family Health (CAFH) is to address the public health needs of children, adolescents, and families whose health is most affected by social inequities.

Methods: I conducted a literature review of perinatal quality improvement initiatives and the process by which the national agenda for Children with Special Healthcare Needs (CSHCN) was created, outreached to and recruited participants, and assisted with the process to develop a set of core objectives for the Boston Perinatal Health Consortium. I conducted a needs assessment for LARCs (long-acting reversible contraception) at clinical sites and recruited sites for the LARC loan pilot project. I created an evaluation survey, disseminated it, and compiled the feedback for evaluation of the progesterone pocket cards and posters.

Results/Outcomes: The citywide, multi-sector Boston Perinatal Health Consortium was created consisting of public health professionals, perinatal health clinicians, academics, and consumers. A steering committee was created to set an agenda. The literature review found that perinatal QI initiatives exist, but little is documented about the creation of the CSHCN agenda. The LLPP is set to start on 9/1/2013 and is hypothesized to decrease the waiting time for a woman to have a LARC inserted. The progesterone pocket card and poster evaluation is still in progress.

Name: Jessica Wiley

Practicum Site: Pulitzer Center on Crisis Reporting—Pamoja Student Foreign Aid News Network

Location: Kisumu, Kenya

Title: Reporting Fellow

Introduction: The topic of foreign aid is typically controversial and poorly understood by the general public. For example, less than 1% of the US federal budget is allocated to other countries in need, roughly \$50 billion a year, but where does it all really go? Is it effective? Who are the people that it impacts? PamojaTogether, a global student-powered news network, aimed to explore these questions by telling authentic stories about the impact of foreign aid from the recipients' perspective while working at the intersection between journalism and complex global health challenges. PamojaTogether was funded by a grant from the Bill & Melinda Gates Foundation.

Methods: Eight students from Boston University partnered with 10 students from two Kenyan universities, Great Lakes University of Kisumu and JOOUST. Student teams were formed and stories were chosen based on extensive field-research and group brainstorming sessions on aid-funded projects in the Nyanza province. My story about malaria in pregnancy prevention program was based on interviews with mothers, doctors and hospital administrators during a several site visits to a rural mission hospital where I also collected audio and took photographs. I also mentored my Kenyan partner in journalism writing and multi-media editing.

Results/Outcomes: I authored one story titled, "Malaria in Pregnancy" and contributed photographs to a story about education sponsorship titled "Educating Delbert." Both of these stories have been published on the website, www.pamojatogether.com. The goal is for these stories to generate awareness and encourage a dialogue about foreign aid among a global audience.

MATERNAL & CHILD HEALTH

Name: Audrey Wolfe

Practicum Site: Boston Public Health Commission—Bureau for Child, Adolescent and Family Health

Location: Boston, MA

Title: CSHCN Research and Program Development

Introduction: Children with special health care needs (CSHCN) represent a population comprised of a diverse range of individuals who vary in age, family income level, race and ethnicity. CSHCN have different levels of functional abilities and need access to medical resources and support services to maintain their physical, emotional, and behavioral needs. While the system of care for CSHCN strives to meet the needs of children and their families, gaps within the system do still exist. The Bureau of Child, Adolescent, and Family Health at the Boston Public Health Commission is dedicated to enhancing programs within the systems of care that serve the most vulnerable children.

Methods: I researched various policies that impact the lives of CSHCN and their families, identified existing programs and supports throughout Boston and the state of MA, and conducted several literature reviews related to the benefits of specific programs for this population. A need for mentoring services for CSHCN was identified and the information I gathered was used to create a pilot curriculum aimed at teaching high school students disability awareness and effective mentoring practices. I then taught this curriculum to a group of interested students.

Results/Outcomes: The end goal of this practicum is to use a compilation of my research to make recommendations for the future implementation of programs and supports for CSHCN and their families in Boston. In addition, the mentoring curriculum that was developed will be modified and expanded to create an after-school mentoring program that matches high school aged mentors with children and youth with special health care needs.

Name: Tamara Wyzanski

Practicum Site: Boston Medical Center—Pediatric Emergency Department

Location: Boston, MA

Title: GEMS STUDY, Research Assistant

Introduction: From April-September, 2013 I worked as a Research Assistant for GEMS (Girls Early Maturation Study). GEMS, in its initial study phase, is looking at the way in which African American girls grow and mature. Mothers and their daughters (between age 4 and 7) were recruited at Boston Medical Center (BMC). Girls have a Tanner Scale assessment done by pediatrician, Dr. Renee Boynton-Jarrett (Principal Investigator for the study) and an extensive qualitative interview was done with mothers to ask about all areas of their life (and their child's life) pertaining (but not limited to) to community, stress, and mental health. Additionally girls gave blood, hair, and saliva samples to identify biomarkers such as Cortisol.

Methods: Methods included a training to actively recruit patients in the waiting rooms and during appointments in the pediatric, eye, endocrinology, surgical, and specialty clinics at BMC. Additionally, I was trained to conduct the interview, collect hair and saliva samples, and maintain follow-up for patients. Follow-up methods included a monthly newsletter mailed to participants to maintain a relationship and raffle-off prizes (which I got donated from local children's museums).

Results/Outcomes: The results of my practicum included being trained to ask sensitive questions around mental health history and work among providers at BMC to recruit patients. I additionally wrote detailed Policy Brief. The brief provided background on the relationship between stress and early-maturation and the potential social, political, and clinical implications our study might reveal when analyzing the biomarker and qualitative data in the future.

SOCIAL & BEHAVIORAL SCIENCES

Name: Anisha Asundi

Practicum Site: Boston Public Health Commission—Child, Adolescent and Family Health

Location: Boston, MA

Title: Child Health Outcomes Intern at BPHC: Foreign-Born Children's Health Outcomes

Introduction: The Boston Public Health Commission's Child, Adolescent and Family Health Bureau and the Boston Children's Hospital are collaborating on a three-part study entitled the Boston Child's Health Study that collected data on parental reports of their child's health in Boston, MA. The focus of this practicum was to determine whether significant differences existed between foreign-born children's health outcomes and US-born children's health outcomes, and the possible reasons for these differences.

Methods: Activities included: 1) an extensive literature review on foreign-born children's health outcomes, organized by the levels of the socio-ecological model, was conducted to illuminate known effects of immigration, acculturation and racism on children's health; 2) phone survey data regarding foreign-born children's health outcomes was analyzed; 3) progress was made on a chapter on health equity which includes emphasis on the racial and ethnic differences in health outcomes, health-care access and use among children in the USA.

Results/Outcomes: The review provided insights into why and how health outcomes might differ among foreign-born children based on previous theories such as the 'healthy immigrant effect' and 'acculturative stress'. Though the sample of foreign born children in the study is small (n =133), the data in this study may assist future efforts in providing adequate healthcare for immigrant and foreign-born children in Boston.

Name: Megan Dumitru

Practicum Site: Abington Health Department

Location: Abington, MA

Title: Trash and C-L-A-S-H: Efforts to increase community and school recycling

Introduction: The Abington Health Department identified three trash and recycling problems that needed to be addressed by providing resident education: 1) inundation with questions about automated trash and recycling collection (ATRC) and which materials are recyclable; 2) a lack of knowledge about recyclable textiles; and 3) non-compliance with a recycling program by an elementary school that only recycled milk cartons. Educational materials were developed for mail or direct distribution. The Abington Health Department received a grant from the Massachusetts Department of Environmental Protection (MassDEP) for ATRC education only. The purpose of this practicum was to assess the challenge and prepare effective education resources.

Methods: Assessment and intervention activities included: 1) A comparison of previously distributed ATRC information with information obtained from the Trash Compliance Officer and other personnel was conducted to identify frequently asked questions (FAQ); 2) a list of recyclable textiles was categorized to develop the acronym, C-L-A-S-H, (Clothing, Linens, Accessories, Shoes, Home); 3) school lunch periods were observed to determine which recyclable materials were being discarded; 4) a newsletter was designed to provide answers to FAQ and information about "Single-Stream Recycling" and textile recycling information; and 5) a proposed incremental recycling implementation plan.

Results/Outcomes: While newsletter funding was for ATRC education only, upon request, inclusion of textile recycling information was permitted. This education initiative has great promise. Determining the ATRC newsletter's impact would require an evaluation comparing community and textile recycling tonnages recorded prior to and after distribution of the education materials.

Name: Brittany Edgar

Practicum Site: Boston University School of Public Health—Department of Community Health Sciences

Location: Boston, MA

Title: Research Assistant

Introduction: Although pornography use is prevalent among U.S. youth, few studies have examined the effects of youth porn exposure on psychosexual development and negative health behaviors. The impact on socially 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 related to 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 youth ranked porn similarly to schools, doctors, parents and siblings in terms of where they learned about sex. Study results can be used to determine how to address pornography exposure in sex education programs.

SOCIAL & BEHAVIORAL SCIENCES

Name: Samantha Feld

Practicum Site: Dorchester House Multi-Service Center

Location: Dorchester, MA

Title: Health Weight for Life Clinic Program Evaluator

Introduction: Dorchester House is a community-based, multi-service health center in Dorchester, Massachusetts, providing affordable, accessible and high-quality health care and essential services to anyone who enters the Center. Established in 2009, The Healthy Weight for Life Clinic (HWFLC) is a clinical, group-focused intervention that helps overweight children ages 6-12 and their families learn to overcome barriers to implementing healthier habits, sustained behavior change, and reduced BMI.

Methods: A mixed methods program evaluation was conducted to assess the impact and effectiveness of the HWFLC. Activities included: 1) a chart review of all participants to assess if post-intervention changes occurred in BMI; 2) key-informant interviews and a focus group with parents of children who had participated in the program to identify their experience and impressions with the program; 3) an exploration of opportunities for greater fiscal sustainability by reviewing the billing and insurance reimbursement process; and 4) preparation of a report with evaluation findings and recommendation.

Results/Outcomes: Findings showed that at least in the short-term, the program was effective in stabilizing BMI and fostering desired behavior change. Overall, the program filled a gap in clinical services offered for obese and overweight pediatric patients. A comprehensive report was prepared that includes a complete data set, evaluation results and recommendations for program improvement and sustainability. It will serve as resource for directors, potential funders, and other stakeholders.

Name: Run Feng

Practicum Site: Pathways to Wellness—South End Community Health Center

Location: Boston, MA

Title: Evaluating an Acupuncture Program Funded through a Managed Care Insurer

Introduction: Pathways to Wellness, Inc. and the South End Community Health Center partnered with a large managed care organization to evaluate the clinical effectiveness of acupuncture and patient's satisfaction with treatment. Questionnaire data was collected from 560 individuals who were referred for acupuncture treatments for the following reasons: pain, headaches/migraines, carpal tunnel syndrome, menstrual or menopausal symptoms. The purpose of this practicum was to analyze the data that was collected from each study participant at the time of their acupuncture treatment-visit.

Methods: Activities included: 1) abstraction, entry, cleaning and analysis of six years accumulated data; 2) creating data tallies and summaries; 3) generating descriptive statistics; 4) representing results with illustrative graphics and figures; and 4) conducting simple analyses that compared baseline clinical data with completion results.

Results/Outcomes: Data were collected on 560 individuals and a summary report of the project's first six years was completed. The summary will help Pathways to Wellness to evaluate the effectiveness of acupuncture treatments on the five primary reasons of referral. The patient satisfaction data will help the administrators and health providers assess and improve their current service.

Name: Jeremy Greco

Practicum Site: South End Community Health Center—Blackstone Elementary School Health Center

Location: Boston, MA

Title: School Wellness Action Plan

Introduction: The rise in prevalence of childhood obesity requires that public schools develop and implement healthy eating and active living curricula. The South End Community Health Center (SECHC) conducted an assessment at the adjacent Blackstone Elementary School to identify current practices in healthy living education, to discover barriers and explore promising approaches for further integrating such activities into the classroom. The purpose of this practicum was to work with a SECHC nutritionist as a member of the assessment team.

Methods: Eight focus groups were conducted with faculty from all grade levels. Common themes related to healthy eating and active living were identified. Faculty were also administered an open-ended survey assessing perceptions of the importance of a healthy living curriculum and their readiness to incorporate this into the classroom.

Results/Outcomes: Survey analysis reveals that the majority of faculty believed that healthy eating/active living education was important. However, many members of the faculty identified barriers to curriculum integration. Levels of teacher readiness were highly variable. Seven topics emerged as key themes common among all grade levels. These informed the following recommendations that were given to the school Wellness Committee: 1) survey parents and keep them engaged in future health promotion strategies; 2) explore current Boston Public School food policies; 3) conduct a pilot nutrition education program; 4) increase movement opportunities within the classroom; and, 5) promote overall staff wellness. These recommendations will support the adoption and implementation of an integrated healthy living education program for the 2013-14 school years at Blackstone Elementary.

SOCIAL & BEHAVIORAL SCIENCES

Name: Kalyn Horst

Practicum Site: Sargent College of Health and Rehabilitation Sciences, Boston University—Genomics and Decision Sciences Laboratory

Location: Boston, MA

Title: Research Assistant

Introduction: The Genomics and Decision Sciences Laboratory develops and uses cost-effectiveness models for analyzing clinical interventions of interest. The benefit of early detection of genomic diseases is still unclear. Knowledge gained from these models aids in determining the best utility of procedures such as newborn screening. This practicum focused on shared-decision making models, which incorporate ethical concerns in addition to cost-efficacy. I developed a novel framework for determining whether prenatal or neonatal screening, or gene or genomic sequencing may be appropriate for a given patient for family planning purposes.

Methods: Activities included: (1) conducted a two-pronged literature review: firstly, patient perceptions of genetic screening procedures for family planning and secondly, primary care physician attitudes toward such procedures; 2) developed a decision-making analysis framework that incorporated both stakeholders' perspectives; 3) demonstrated the utility of this framework for two distinct conditions using data from literature and facilities providing screening services. Each condition analyzed has well-established genetic components but differs by disease onset, medical management of disease, and prognosis.

Results/Outcomes: The framework presented provides a systematic approach to evaluate decision-making. With cystic fibrosis and Alzheimer's disease as theoretical case studies, this framework's applicability is broad. Our model concludes that physicians are encouraged to include their patients in this decision-making process. Future work is needed to ensure clear communication of the procedures and related risks and benefits to patients during this process.

Name: Elise Korte

Practicum Site: Boston Public Health Commission—Child, Adolescent and Family Health

Location: Boston, MA

Title: Start Strong Initiative Intern

Introduction: The Boston Public Health Commission, a member of the Start Strong Learning Community, is the lead organization for Start Strong Boston. Start Strong: Building Healthy Teen Relationships works to prevent teen dating violence in youth ages 11-14. Teen dating violence is a concern for public health because poor health behaviors are associated with it, such as substance abuse, depression, and unplanned pregnancy. Start Strong Peer Leaders- older youth ages 15-18, are empowered to envision, design, and facilitate teen dating violence prevention programs for the younger youth in their communities. Programs include healthy relationship behaviors, warning signs of abuse, and ways to support victims. Start Strong also engages parents, teachers, and other mentors to support teens in their relationships.

Methods: Start Strong internship activities included: 1) engaging with the staff team to lead the peer leader's six-week training program; 2) educating the peer leaders on content for their prevention programs; 3) creating, implementing and evaluating a sexual health workshop; 4) developing icebreakers for peer leaders 5) supervising peer leaders and acting as a role model; and 6) assuming administrative duties for the fourth annual "Break Up Summit"- a one-day conference for the city's youth groups to participate and learn about healthy break ups.

Results/Outcomes: Through peer education Start Strong Initiative is working to prevent teen dating violence and promote healthy relationships within neighborhoods of Boston. Parents, teachers, and mentors are also challenged to recognize teen relationships and support healthy behaviors within them.

Name: Joanna Krause

Practicum Site: Boston University School of Public Health—Center for Global Health and Development

Location: Boston, MA

Title: Evaluating Organizational Capacity in Ethiopia

Introduction: In international development, donors use a variety of assessment methods to determine the organizational capacity of non-governmental organizations (NGOs) which may be potential fund recipients. However, many of the assessment tools are comprised mainly of subjective measures which do not allow for comparisons across organizations or over time within one organization. In response to this issue, researchers at the Center for Global Health and Development at BU developed a tool which is currently being used to assess 60 NGOs providing services to vulnerable children across Ethiopia.

Methods: Assessments are conducted using the Measuring Organizational Development and Effectiveness (MODE) Tool. This tool includes an interview questionnaire with an objective line of questioning and a document review to verify interviewee responses. The assessment is conducted on-site at each NGO by a team of two assessors which lasts approximately three hours. An anonymous check-box survey is conducted with all staff members. Data is entered into CSPro, analyzed in SAS and results entered into an Excel report template.

Results/Outcomes: Reports were prepared for each NGO in the study comparing the results of this year's assessment with the baseline assessment results from 2012. Each NGO receives an overall MODE score and a score for each of 11 domains detailing where organizations had made improvements resulting in an increased score, declined or had no change. The report includes recommendations for how each organization should focus their efforts to improve organizational capacity by 2014.

SOCIAL & BEHAVIORAL SCIENCES

Name: Katherine Kritikos

Practicum Site: Massachusetts Department of Public Health—Bureau of Infectious Disease

Location: Boston, MA

Title: Assessing Massachusetts' Role in HIV/AIDS Advocacy, Treatment, and Prevention

Introduction: The Office of HIV/AIDS (OHA) at the Massachusetts Department of Public Health (MDPH) contracts with organizations throughout the state to provide HIV-related prevention, screening, and care services to those living with—or at risk for—HIV infection. The purpose of this practicum was to identify and contribute to the role that the state plays in promoting HIV/AIDS advocacy, treatment, and prevention. In doing so, I had the opportunity to collaborate with members of OHA's health communication, community planning, and capacity building teams.

Methods: During my time at OHA, I was mainly responsible for the following: (1) assisting in the development of an HIV "basics" manual, the primary audience being new HIV/AIDS service providers in Massachusetts, (2) assessing HIV/AIDS service providers in their ability and readiness to provide support to consumers, and (3) working with the Statewide Consumer Advisory Board (SWCAB) to create biographies for current members.

Results/Outcomes: Upon completion, the manual will serve as a tool for educating new service providers about the basics of HIV/AIDS. Additionally, the SWCAB biographies will illustrate the work that current members have done in advocating for their HIV positive peers.

Name: Karen Liaw

Practicum Site: University of California, Davis—Department of Public Health Sciences

Location: Boston, MA

Title: Research Assistant: To assess the local food environment in Sacramento County, including the distribution of food retailers and health-related advertisements

Introduction: Outdoor advertising is an important but understudied component of the sociocultural environment which can influence the choices that we make. The influence of these advertisements may also contribute to the socio-demographic disparities in obesity and chronic health conditions. My practicum focuses on whether or not there is a higher number of "unhealthy" ads, meaning ads that promote sedentary lifestyle and unhealthy foods, that are prevalent in low income versus high income and racially segregated versus predominantly white areas.

Methods: In order to assess advertisements that were present in 16 different zip code areas in Sacramento County, income and demographic information was gathered from the 2011 American Community Survey from the Census Bureau. A protocol was created to efficiently gather ad information from the main roads found in these 16 zip code areas. A smartphone application (droidSURVEY) was employed to gather data location, descriptive data, and a photo of the ad. Next, data analysis was achieved using a coding form to place the ads into 3 categories: healthy, unhealthy, or neutral. This process showed the different frequency of ads that were found in each zip code area.

Results/Outcomes: Unhealthy ads were found in higher frequencies in low versus high income areas. Also, the only demographic category that had more "unhealthy" versus "healthy" advertisements was the "low-income African American and Hispanic race." This finding is important since this racial-income category is also the most obesity prone.

Name: Caroline Pantridge

Practicum Site: Boston University School of Public Health—Department of Community Health Sciences

Location: Boston, MA

Title: Qualitative Research Assistant

Introduction: Alcohol use among college aged youth in Mexico is the focus of a Boston University School of Public Health study (Lee Strunin, PI). The goal of the study is to identify risk and protective factors for high-risk drinking in this population and to better inform alcohol prevention programming for Mexican-American youth living in the United States.

Methods: Practicum activities included: 1) collection of both quantitative and qualitative data from freshman students at the National Autonomous University of Mexico were collected; 2) use of the HyperRESEARCH software program to analyze data collected from 117 interviews with students in six alcohol consumption categories: nondrinkers, abstainers, occasional drinkers, regular drinkers, heavy drinkers, and excessive drinkers; 3) analysis of student alcohol use and the use and attitudes of their family (siblings, cousins, aunts/uncles, and grandparents), eventually focusing on students who discussed drinking socially with their family (during meals, special occasions, etc.); 4) completion of a literature review related to youth drinking patterns with extended family; and 5) contribution to future publication on this topic.

Results/Outcomes: Regular drinkers were the most likely to drink socially with their families. The literature discussing alcohol use and family focused solely on parents and siblings. These papers discussed the impact of family cohesion, parental communication, and modeling on alcohol use among youth. It is clear that more research needs to be done on the impact of the extended family. The number of students that indicated drinking with their extended family shows that this group could be vital for future prevention programming.

SOCIAL & BEHAVIORAL SCIENCES

Name: Kevin Rix

Practicum Site: Brain Injury Services

Location: Lexington, MA

Title: Research Intern within Supportive Living Incorporated working under Executive Director Peter Noonan

Introduction: Supportive Living Inc. (SLI) is a non-profit organization with offices and housing facilities located throughout the greater Boston area, focused on assisting, researching and rehabilitating those living with both traumatic and acquired brain injury. As part of Supportive Living Inc., the ground floor of their Lexington facility is dedicated to researching different areas of brain injury treatment, and recovery. This is in effort to further increase social justice within an underserved and growing population of individuals. The goal of my research is to examine what current research exists both throughout the United States and world wide that SLI can use within their wellness center. My research also entailed creating contacts and partnerships for future relationships for SLI's research.

Methods: To complete my practicum my research entailed: 1. Doing literature reviews on past, current, and on going research, and compiling this information for reference in future grant writing, and future application with SLI. 2. Identifying individual researchers and their research projects, that can be put into partnership with SLI. 3. Researching Grant opportunities and compiling them and summarizing them for possibly application by SLI.

Results/Outcomes: In the long term, the research completed, will provide SLI, with contacts, possible funding, and all the information on current research that can be applied for future research initiatives, to help create a socially just world for those living with brain injury.

Name: Natalia Schiller

Practicum Site: Institute for Community Health

Location: Cambridge, MA

Title: Evaluation Intern - Learning, Engaging and Advocating with Peers (LEAP) Program

Introduction: The Institute of Community Health (ICH) is collaborating with AIDS Action Committee of Massachusetts (AAC) to evaluate AAC's Learning, Engaging and Advocating with Peers (LEAP 2.0) Project. The primary goal of LEAP 2.0 is to link and help retain HIV-positive women, MSM, and IDUs to HIV medical care. The purpose of this practicum was to qualitatively interview patients about what "retention in care" means to them and how this perception might affect their current medical engagement. The hypothesis was that clients' involvement within the social framework of AAC, and their interaction with client advocates, peers, and mental health clinicians, may affect and shape their understanding of HIV clinical care.

Methods: Over the course of 7 months, activities included: 1.) regular meetings with the senior scientist at ICH to frame the research question; 2.) development of an interview protocol and recruitment plan; 3.) preparation, submission and approval from IRB; 4.) completion of eight individual participant interviews; 5.) data transcription and analysis; and 6.) reporting outcomes to research partners.

Results/Outcomes: We identified the themes of fatalism and denial as potential barriers to engagement and retention. An interest in a high quality of life, self-reliance, and social support/activity involvement emerged as potential facilitators. HIV medical care involvement may also be related to participants' locus of control. These data provide a better understanding of clients' perceptions of medical engagement and can inform AAC's role in retention to care.

Name: Daniel Stultz

Practicum Site: Fenway Community Health—National LGBT Health Education Center

Location: Boston, MA

Title: Intern

Introduction: A new goal named in Healthy People 2020 is to improve the health of LGBT individuals. However, a lack of education about LGBT health issues among medical providers is a barrier to this goal. This knowledge gap can create low-access to care for LGBT individuals, low-quality care and increased stigma. As part of the National LGBT Health Education Center (NLGBTHEC) at The Fenway Institute, the goal of this practicum was to update and develop online curriculum to train medical practitioners and health centers about LGBT health issues as well as the best practices for treating LGBT patients.

Methods: Existing learning modules available on the NLGBTHEC website were updated with the latest data available through literature reviews and consultation with experts in the field of LGBT health issues. In addition to updating existing modules, brand new curriculum was developed in the form of learning guides similar to short book chapters that promote further learning of the issues presented in the modules as well as aiding trainers who wish to present the material to a larger audience.

Results/Outcomes: As a result of this practicum and continuing work with NLGBTHEC, seven new learning modules and learning guides will be freely available online for medical providers to improve their understanding of LGBT issues as well as learn best practices for treating patients in a way that is inclusive towards sexual and gender minorities, with future hope of improving care and access for LGBT patients.

SOCIAL & BEHAVIORAL SCIENCES

Name: Anne Thorsen

Practicum Site: Massachusetts Department of Public Health—Division of Epidemiology and Immunization

Location: Boston, MA

Title: Health Education Intern

Introduction: The Massachusetts Department of Public Health (MDPH) Foodborne Illness and Antibiotic Resistance programs have a currently outdated and incongruent presence on the state website which no longer communicates important goals and resources to individuals, communities, and healthcare providers. The purpose of this practicum was to update, streamline, reorganize and prioritize information on these sites in order to provide concrete and accessible information regarding public health practices and illnesses associated with these two programs.

Methods: Project activities included: 1) review features of existing related websites to inform the design of a template that mirrors the existing mass.gov websites; 2) design an enhanced and reorganized website with current information and accessible resources; and 3) incorporate relevant state antibiotic resistance data as an information source for consumers and healthcare providers.

Results/Outcomes: The proposal clearly targets the three intended groups, and provides surveillance and reporting information for related illnesses. The proposal incorporates user-friendly data and consolidated materials to increase accessibility and understanding of relevant information and resources about the Foodborne Illness and Antibiotic Resistance programs.

Name: Currie Touloumtzis

Practicum Site: Franklin County Solid Waste District

Location: Greenfield, MA

Title: Intern for FCSWMD's Agricultural Plastics Pilot Program

Introduction: Franklin County Solid Waste Management District (FCSWMD) received a grant from the Massachusetts Department of Environmental Protection (MassDEP) to begin a pilot program for farmers to recycle agricultural plastics. Although plastics may be useful and increase efficiency and productivity, they are difficult and often costly to dispose of. To avoid hefty tipping fees at transfer stations, farmers often resort to illegally burning the used plastic on their property. The health consequences of burning plastic, particularly chlorinated plastic, can be severe. Releasing dioxins and other noxious chemicals is problematic for the individuals burning them, as well as their surrounding community. The purpose of this practicum was to help implement the grant.

Methods: Grant implementation activities included the following activities: 1) similar programs within North America were identified and contacted for experiential insight; 2) several recyclers were identified and a contract executed with North Brook Farms in Auburn, NY, to be the recipient of the plastics collected by FCSWMD; 3) outreach was made to inform all farmers and producers about this new pilot program; 4) an informational flyer describing the ill-effects of burning plastic was created for distribution; and 5) research about the biological effects from burning plastics was continuously reviewed.

Results/Outcomes: The goal of this project is to have a sustainable, affordable option for farmers' agricultural plastics. This Agricultural Plastics Recycling Program will ideally have a positive impact not only on the health of the farmers, but the vulnerable, rural population they neighbor.

Name: Ashley Walker

Practicum Site: South End Community Health Center—Blackstone Elementary School Health Center

Location: Boston, MA

Title: Childhood Obesity and Wellness Project Intern

Introduction: In 2012 the William H. Blackstone Elementary School wellness committee, in collaboration with the South End Community Health Center, identified nutrition and physical activity health education as a focus for the school's Wellness Action Plan. The aim of this practicum was to participate as a member of an assessment team to identify current practices in healthy living education and the barriers, facilitators, and best approaches to integrating such activities into the classroom.

Methods: Eight focus groups were conducted with specialists, K-5 teachers, and two administrators. A brief survey was designed and implemented to assess perceptions of the importance of teaching healthy eating and physical activity, and readiness to incorporate these lessons into individual classrooms. A post survey follow-up discussion was conducted to determine perceptions of current practices in healthy lifestyle education activities, and potential opportunities for implementation. Key themes from the group discussions are the underpinning of recommendations for moving forward in the Wellness Action Plan. A final report on key findings and recommendations was presented to the Wellness Committee and posted on the school blog.

Results/Outcomes: Data collection revealed that interpersonal and policy influences contribute to the current food environment and create barriers to healthy education implementation; therefore, recommendations include engaging parents and exploring BPS policies. Additionally, expanding current effective programs is a first step in integrating nutrition and active living education activities into the school day. This needs assessment will serve as the groundwork for future implementation efforts, both school-wide and within individual classrooms.

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