

Boston University School of Public Health

Student Practicum Abstracts

Fall 2014

BUSPH STUDENT PRACTICA FALL 2014

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

Where in the world were BUSPH spring practicum students?

24 Cities and Towns

10 States across the U.S.

11 Countries



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Name: Cheng, Han-Ling
Practicum Site: Harvard School of Public Health
Location: Boston, MA United States
Title: Research Assistant

Introduction: We performed a retrospective cohort study in 1,263 gestational diabetes mellitus women at 1-5 years after delivery. Data were obtained from the Tianjin Gestational Diabetes Mellitus Prevention program. Our goal is to evaluate the association of TCF7L2 genotype and weight change from pre-pregnancy to postpartum 1-5 years and association of TCF7L2 and gestational weight gain.

Methods: We eliminated 67 women who did not have TCF7L2 genotype information from the 1,263 eligible participants; therefore, a total of 1,196 participants were analyzed in our study. We performed multiple linear regression analyses of the association between gestational weight change from pre-pregnancy to 1-5 years postpartum and TCF7L2 genotype, and between gestational weight change and TCF7L2. The analyses were adjusted for: age, pregnant age, pre-pregnant BMI, family diabetes history, sitting time, activity time, total energy intake, fiber intake, energy percent of mono unsaturated fat, energy percent of polyunsaturated fat, and energy percent of saturated fat. A two-sided P value less than 0.05 was considered statistically significant. All statistical analyses were performed by using SAS version 9.4 for Windows.

Results/Outcomes: We found that TCF7L2 RS7901695 is associated with higher gestational weight gain after adjusting for other traditional risk factors (P-value=0.016). RS7901695 is also associated with higher weight gain from pre-pregnancy to postpartum 1-5 years in the fully adjusted model. Our results suggest that women carrying two T alleles may have a greater gestational weight gain and tend to gain more postpartum weight, independent of traditional risk factors.

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

Introduction: There is an increasing interest in how the marijuana-related policies may influence youth marijuana use. Currently, there is a natural experiment occurring as states liberalize marijuana laws with respect to decriminalization, medical use, and legalization. A dichotomous variable reflecting medical marijuana laws (MMLs) or decriminalization obscures important aspects of these laws. The goal of this practicum was to develop an enhanced measure of state-level marijuana policy that recognizes the heterogeneity of these laws and that will help us understand how specific policies effect youth marijuana use.

Methods: We conducted a literature review to assess important aspects of marijuana policies and how these have been measured in the past. A measure of state-level marijuana policy environment was developed based on a review of marijuana laws in 50 states and Washington, DC for the year 2011. State-based data from the CDC's Youth Risk Behavior Survey for individual-level marijuana use was also obtained. We used generalized estimating equations, adjusting for YRBS sampling weights and clustering of individuals within sampling units, to predict the odds of individual-level youth outcomes.

Results/Outcome: An absolute 10 percentage point increase of policy score was associated with a 5% decreased odds of youth lifetime use (OR=0.95, 95%CI=.92, .97) and a 4% decreased odds of youth use before age 13 (OR=0.96, 95%CI=.93, .99). I became familiar with the existing literature on the effects of marijuana liberalization policies on youth marijuana use. I also gained experience in creating datasets and performing statistical analysis using datasets from large population-based surveys.

Name: Parameswaran, Vidhya
Practicum Site: Boston University School of Public Health
Location: Boston, MA United States
Title: Graduate Research Assistant

Introduction: The Data Coordinating Center at Boston University School of Public Health has served primarily as a data management consultancy center since its inception in 1984. The DCC has been involved in assisting with questionnaire development, implementation of study protocols, double-data entry, and statistical programming. As a Graduate Research Assistant for the Fall semester, I had the opportunity to get experience in data management and SAS programming.

Methods: I was involved in assisting with finalizing study instruments and protocols, maintaining project documentation and creating study binders, assisting with programming and testing of electronic forms and verifying data collection forms using the TELEForm optical scanning data capture system for the Narcan overdose reversal project. Further, I was also involved in performing the second data entry to enter survey information into REDCap for the Ft. Devons project which aims at studying the Gulf War exposure and development of a wide range of illnesses among veterans. I also had the opportunity to learn about performing checks for quality control by monitoring for discrepancies between the first and second data entry using PROC COMPARE in SAS.

Results/Outcomes: Working at the DCC has widened my understanding of performing quality control for large datasets. I have understood the importance of time management and performing data entry paying scrupulous attention to detail. Further, I have also realized that having an Electronic Data Capture system for clinical data management ensures cleaner data, more efficient data entry and speedy access to the analysis dataset.

BIOSTATISTICS

Name: Sachdeva, Shruti

Practicum Site: Data Coordinating Center, Boston University School of Public Health

Location: Boston, MA United States

Title: Research Assistant

Introduction: The Data Coordinating Center (DCC) at BUSPH is a data management resource center that assists investigators with case report form design, implementation of study protocols, data management and statistical analysis. As an intern at DCC, I have got the opportunity to learn more about and case report form design, data entry and management.

Methods: I worked on two projects that were at different stages. Oncogrid: I assisted in finalizing study instruments and protocols; and I learned how to create study binders to guide doctors for online data entry; and I audited the online case report forms. The project meetings were helpful in learning more about the challenges of conducting a clinical trial. I edit-checked the study (test) data received from study site with the help of SAS. Analysis for this project is ongoing; more data from the study site is awaited. URBAN-ARCH: I attended project meetings and helped in auditing the data entry from hand written CRF to the electronic database. The analysis for this project is ongoing.

Results/Outcomes: I learned about various steps taken in Data Collection process, Quality Control and Validation of data. I gained experience in working with a team. This internship provided me with a deep insight of conduct of clinical trial, process of randomization, IRB issues, collection of study data, and data management.

Name: Sachdeva, Shruti

Practicum Site: Division of Developmental Medicine, Boston Children's Hospital

Location: Boston, MA United States

Title: Data Analyst Intern

Introduction: The Division of Developmental Medicine at Boston Children's Hospital aims to focus on children who face developmental and behavioral challenges and to support their families throughout their child's life span. As a data analyst intern, I learned about ICISS Health (Integrated Clinical Information Sharing System), a web-based platform that provides remote monitoring, real-time analysis, and tracking of patients' disease symptoms and response to therapy over time.

Methods: I worked with the team to conduct a chart review and analysis to determine the effect of ICISS on rates of ADHD documentation in a large subspecialty practice 2 years post-implementation. We reviewed medical records for rating scales that were documented at follow-up ADHD visits, and we randomly sampled documents quarterly over 3 time periods: pre-implementation, roll-out, and post-implementation. We assessed change in visit-based documentation rates of parent and teacher ADHD rating scales using statistical process control charts for proportional data (p-charts), stratified by eDMC user vs. non-user status.

Results/Outcomes: We reviewed 920 follow-up ADHD visits (~50 per quarter) for 548 patients with ADHD (mean age at first visit=9.9 ± 3.1 years, 77% male, 74% white). Pre-implementation, mean documentation rate for any parent or teacher rating scale was 37. Post-implementation, the mean documentation rate increased to 63%.

Name: Tsacogianis, Theodore

Practicum Site: Boston University School of Public Health

Location: Boston, MA United States

Title: Data Management Intern

Introduction: Using data from two previously completed household contact studies in Brazil and Uganda, I worked with Professor White and Professor Hochberg in collaboration with the TB Data Coordinating Center at Boston University/Boston Medical Center on a project investigating the differences in Tuberculosis infection by age and gender. I was responsible for conducting the analysis with guidance from Professor White.

Methods: Using SAS Version 9.3, I cleaned and analyzed variables that were comparable across the two separate datasets from Brazil and Uganda to provide demographics tables and to assess variables of interest that could potentially be included in a final model predicting incident infection. Generalized Estimating Equation (GEE) logistic regression models including age, gender, their interaction term, and a single measure of index case disease severity (extent of disease on x-ray, cavitation, etc.) are being used to assess which severity measures could be included in a final model predicting incident infection. The final model is still being created at this time.

Results/Outcomes: Although analysis is still ongoing, it was found that the results in Brazil and Uganda were too different to be combined into a singular model as the household contacts in Uganda had a much higher prevalence of TB infection.

ENVIRONMENTAL HEALTH

Name: Mehta, Divya

Practicum Site: Massachusetts Department of Public Health

Location: Dighton, MA United States

Title: Dighton Board of Health Intern

Introduction: Illegal discharges into stormwater systems are an environmental health concern as they have the potential to contaminate drinking water sources. Dighton is a small town in Southeastern Massachusetts with 3 rivers in its town boundaries. Due to the town's proximity to these water sources, the Board of Health began a mapping project to obtain the GPS coordinates of its stormwater system. The objective of this practicum was to create maps of the stormwater system elements to provide information about water flow within the town. This project will allow the town to remain in compliance with EPA Stormwater regulations and NPDES standards.

Methods: A Garmin GPS device was used to collect the coordinates of the drainage system, which includes catch basins and manholes. Each element was labeled using a numbering system to allow for easy identification in the future and paper maps were generated of each street. ArcGIS was used to generate a shapefile with the coordinates of the drainage system.

Results/Outcomes: There were 1300 stormwater elements mapped during the course of this project. The shapefile will be added to the town's MapGeo system to provide information for town officials and residents. Paper maps were drawn to document the locations of the storm water system and to aid in future maintenance and surveillance. This mapping project allowed Dighton to gain more information about its storm water drainage system that it can use to protect its drinking water resources. This increased surveillance of the basins will allow for rapid identification of contaminated water sources and prevent illegal discharges into the rivers.

Name: Miller, Stephen

Practicum Site: MA Department of Public Health, City of Revere Healthy Markets Initiative

Location: Revere, MA United States

Title: Improving Access to Healthy Foods in Revere

Introduction: The goal of Revere's Healthy Markets Initiative is to improve access to healthy foods in the community in order to reduce escalating obesity rates, currently at 33% for adults and 44% for youth under 18. To address this problem, the initiative is partnering with local convenience stores in low-income neighborhoods that agree to stock a recommended variety of healthy items, display marketing materials, and keep items and prices visible. The project objective is to increase convenience store participation and maintain existing partners.

Methods: Three new stores were identified to participate and were presented with program information. Stores were provided with the following: education on produce handling; publicity through social media; store assessments to determine inventory; store layout improvements; initial interviews to determine store goals; sales tracking methods for produce inventory to help owners reduce waste; and multilingual shelf signs to guide customers to healthy choices. Customer surveys were created for two new stores to determine demands for healthy items. During a one-day period, all customers entering and exiting both stores were asked to complete a survey, totaling 30 completed surveys.

Results: Two new stores signed participating agreements; four currently enrolled stores have maintained initiative standards. Store owner surveys determined a willingness to stock more healthy items, particularly produce, as long as customers demand them, but perceive demand to be low. Customer survey results suggested customers are likely to purchase produce if variety and quality are offered at competitive prices. The initiative is targeting three new stores per year.

EPIDEMIOLOGY

Name: Almirol, Ellen
Practicum Site: Fenway Community Health
Location: Boston, MA United States
Title: Research and Policy Intern

Introduction: Data has shown that people at high-risk for HIV may underestimate their HIV risk and subsequently continue at-risk behaviors. Thus, regular HIV screening is an important component for HIV prevention, particularly in high-risk populations. Fenway 500 is a study designed to identify individuals acutely HIV-infected and assess acceptability of HIV home self-testing (HST) among at-risk men and transgender women who have sex with men (MSM). The objective of this practicum was to explore the relationship between high-risk sexual behaviors and HST acceptability in MSM, over a 3-month period.

Methods: HIV-negative MSM were given HIV home self-tests and were trained to perform HST biweekly. Participants completed computer surveys regarding sexual behaviors and HST acceptability at baseline and 3 months. Using R, I performed descriptive statistics, paired t-tests and correlation analyses between sexual behavior and HST acceptability over time.

Results/Outcomes: Among 199 MSM participants (m=36.5yo, 69.1% Caucasian), 145 (72.9%) completed the 3 month follow-up assessment. At-risk sexual behaviors (number of partners and anal sex acts, with and without condoms) decreased during the study period ($p \leq 0.03$). A rise in general HST acceptability was significant over time ($p \leq 0.01$). Significant positive correlations were observed among several sexual behaviors and HST acceptability at both time points. As high-risk behaviors increase, attitudes on HST increase as well. This relationship shows promise that frequent HIV screening may be an effective tool for prevention in MSM, such that as those at high-risk appear to be the most comfortable with regular HST.

Name: Alvarez, Erika Dominique
Practicum Site: Zensun USA
Location: San Diego, CA United States
Title: Clinical Statistical Intern

Introduction: Zensun, U.S.A. Inc. is a biopharmaceutical company developing a novel treatment for chronic heart failure (CHF). Chronic heart failure is a condition that affects nearly 5 million people in the United States and has no real cure aside from heart transplantation. Zensun, U.S.A. is currently performing Phase III trials in China and has been approved to begin Phase III trials in the United States.

Methods: I assisted in adverse event safety analysis that was to be submitted to the FDA. I generated SAS programs to merge and perform statistical procedures on CDISC SDTM/ADaM databases on 12 Phase I and Phase II clinical trials completed in China, Australia, and the United States. I created individual subject and study summary reports regarding specific adverse events. The proportion of adverse events in the investigational drug group was compared to the placebo group using a Chi-square test.

Results/Outcomes: I practiced clinical trial data analysis skills such as merging datasets and performing statistical procedures. I gained exposure to the major statistical deliverables in the pharmaceutical development process. Through my work, I was able to provide the company with adverse event information required for submission to the FDA.

Name: Berdjis, Noushin
Practicum Site: Dana Farber Cancer Institute
Location: Boston, MA United States
Title: Intern

Introduction: The Survey and Data Management Core (SDMC) is part of the Center for Population Sciences of the Dana-Farber Cancer Institute located in Boston, MA. The SDMC provides research expertise and technical support for both behavioral and clinical research projects for various institutions within the Harvard medical research community. More specifically, SDMC staff design surveys and other research tools, develop and implement data collection, conduct quality control, data management, as well as statistical and qualitative analysis of data. The SDMC is a fee-for-service organization and does not receive funding from the Dana-Farber Cancer Institute.

Methods: Throughout my internship at the SDMC, I will be assisting with the Internal Quality Improvement Study. This study consists of interviewing key informants with the purpose of evaluating the SDMC and their services. The goal is for the SDMC to be able to improve upon and expand existing services. Thus far my responsibilities have included assisting with the development of the interview tool, contacting key informants to schedule interviews, as well as conducting interviews for the data collection phase. Additionally, I have received qualitative research and interviewer training from SDMC staff. Concurrently, interview transcription and coding is taking place. Once all interviews have been conducted, transcribed and coded, I will assist with data analysis.

Results/Outcomes: The Internal Quality Improvement Study is currently ongoing. Twenty-eight key informants have been contacted, 20 interviews have been scheduled, and 10 interviews have been conducted. As we are still collecting data, we are in the preliminary stages of data analysis.

Name: Bova, Mark
Practicum Site: Health Map at Children's Hospital
Location: Boston, MA United States
Title: Simple SIR Model of Chikungunya in India

Introduction: Chikungunya (CHIKV), an arbovirus of the genus Alphavirus, is transmitted through the bite of an Aedes mosquito. The two primary Aedes spp. responsible for Chikungunya transmission are Aedes aegypti and Aedes albopictus. There is currently no specific treatment or vaccine for Chikungunya. The first local outbreak of Chikungunya in Singapore began in January of 2008 and was initially contained, but a second wave of clusters appeared causing an island-wide outbreak during 2008-2009.

Methods: An SEIR infectious model with a mosquito component was created to quantify the parameters of the outbreak. Data was collected from the Singapore Ministry of Health web site and HealthMap's database. HealthMap is an online disease surveillance system that maps disease outbreaks. The data consisted of weekly Chikungunya case counts from 2008-2009. The SEIR model with mosquito and human components was created to model the parameters of the second wave of the outbreak in late-2008 into 2009 using the statistical software R.

Results/Outcomes: The results of the model indicated an R_0 of approximately 1.0 symbolizing the average number of infections from human-to-mosquito and mosquito-to-human. The average number of secondary infections resulting from human infections was also estimated to be 1.0. Due to the small number of weekly cases, traditional fitting of the model to case data could not be performed. Instead, optimization of the parameters was performed manually. The small size of the outbreak can be attributed to the aggressive control measures performed in Singapore.

Name: Garcia, Carmen
Practicum Site: Boston University School of Dental Medicine
Location: Boston, MA United States
Title: D.D.S., M.D. Clinical Instructor Department of General Dentistry, Boston University Goldman School of Dental Medicine

Introduction: With the increase in life expectancy a larger number of elderly patients with chronic diseases are taking more medications that affect oral health. Dental students are expected to provide dental therapy to medically compromised patients. The objective of this retrospective study was to investigate the prevalence of systemic diseases and medication use in a cohort of dental school patients.

Methods: A retrospective analysis of the electronic medical records was conducted for all new patients aged 18 or older, seeking dental care at BUSDM from July 8, 2013, through March 8, 2014. We described the distribution of patient's demographics, tobacco and alcohol use and past medical and drug use history. Differences between gender and diseases were detected by Pearson's chi-squared test. All p values were considered to be statistically significant at $p < 0.05$.

Results/Outcomes: A total of 15,796 patients (54.3% females) were included in this analysis. The mean age was 43.9 year-old (SD: ± 16.1). Tobacco use was reported by 24% of patients, alcohol consumption by 32.4% and recreational drug use by 4.5% (higher prevalence in males, $p < 0.01$). Use of medications was reported by 64.9% of patients. The most prevalent diseases were: hypertension (22.9%), psychiatric (19.5%) and rheumatologic diseases (15.1%), respiratory diseases (13.4%), diabetes mellitus (10.8%), hematological disorders (7.2%), thyroid diseases (6.5%), liver diseases (6.4%), cancer (6.0%), HIV positive/AIDS individuals, (5.4%) and other cardiovascular diseases (4.17%). Hypertension, hematological disorders, psychiatric conditions, rheumatologic, respiratory and thyroid diseases, cancer, diabetes mellitus and medication use were more prevalent among females ($p < 0.01$). Liver diseases, AIDS and HIV infections were more prevalent among males ($p < 0.01$).

Name: Ho, Tiffany
Practicum Site: Boston Medical Center
Location: Boston, MA United States
Title: Research Assistant

Introduction: To understand the impact of research participation, we examined 14 years of survey data through BU's Medical Student Summer Research Program (MSSRP). We analyzed factors that drove students to a positive experience. Through our analysis, we can draw conclusions to create a more suitable environment for medical student research and use an evidence-based approach to incite long-term career interests in research.

Methods: Data was collected in questionnaires from 2000 to 2013. Students reported their research experience, ability to achieve goals, possibility to continue research, possibility to publish findings, and project length appropriateness. Preceptors graded their students on categories such as effort, originality, reliability, relation with staff, communication, and attendance. Basic summary statistics were obtained. Student responses were matched with corresponding preceptor responses, and bivariate analyses between each student and preceptor response was performed. A logistic transformation analysis was performed on each binary response to determine potential research factors contributing to a positive or negative response.

Results: The average student rating on overall research experience was 1.349 out of 5, and the average preceptor rating was 1.550 out of 5, indicating that student and preceptor experiences were positive. Two categories returned statistically significant values in the bivariate analysis: the preceptor's evaluation of the student's interaction with staff and the preceptor's evaluation of the student's attendance. Factors which influenced a positive rating in the logistic transformation analysis included: student's overall experience, student's rating of the preceptor's availability, student's possibility in publishing the data, project continuity, and achievement of student's goals.

EPIDEMIOLOGY

Name: Hoelsing, Ashley
Practicum Site: Harvard Medical School Department of Genetics
Location: Boston, MA United States
Title: Genetic and Environmental Risk Factors of Multiple Sclerosis Study Intern

Introduction: Multiple Sclerosis (MS) is a neurodegenerative disorder affecting 2.5 million people. Early intervention is crucial for delaying progression of disease. However, there is currently no clinically suitable tool to detect those at highest risk. We employed an algorithm using genetic and environmental markers to create a weighted risk score and applied it to individuals with at least one first degree relative with MS.

Methods: We applied our algorithm to individuals from the Genes and Environment in Multiple Sclerosis (GEMS) study, a defined cohort of high-risk individuals. Each individual was assigned a Genetic Risk Score (GRS) that included 64 MS loci and an overall Genetic and Environmental Risk Score (GERS) that incorporated the GRS plus sex, smoking and mono history. To assess the contribution of the strongest genetic risk factors, we created two additional GRSEs, one without 5 HLA alleles of chromosome 6 (GRSnonHLA) and another with only HLA alleles (GRSHLA). The GRSEs and GERS were compared between MS cases and controls.

Results/Outcomes: Of the 1696 participants, 113 (6.6%) have a confirmed diagnosis of MS. Individuals with MS have a higher mean GRS ($p=4.4 \times 10^{-6}$, AUC = 0.624) and GERS ($p=1.5 \times 10^{-5}$, AUC = 0.625) than controls. When removing HLA alleles, we still see a significant difference between MS cases and controls ($p=8 \times 10^{-4}$, AUC = 0.561). This is also seen when comparing the AUC of the GRSHLA to that of the GRS, suggesting that the non-HLA alleles contribute to the assessment of risk in MS.

Name: Jin, Yinzhu
Practicum Site: Boston University Medical Center
Location: Boston, MA United States
Title: Research Assistant

Introduction: The prevalence of knee arthritis/pain is high in China, limiting patients' daily physical activities. However, there is no data supporting this epidemiological problem at a national level. The China Health and Retirement Longitudinal Study (CHARLS) aimed at estimating the prevalence of knee arthritis/pain and the effect of knee arthritis/knee pain on patients' physical impairments.

Methods: Data was obtained from a national survey among Chinese retired populations. During the study period, exposure status and baseline information were obtained through questionnaires, and outcome measures were conducted through series of physical examinations. One of the physical activity indications was measured by five times chair standing test. Time used to stand up straight from chair was measured as one outcome. Linear regression model was used to estimate the association between exposure and outcome, adjusting for age, sex, BMI, education level, smoking/drinking history, injury history, hip fracture, fall, and Charlson Comorbidity Index.

Results/Outcomes: There were 17708 subjects participated in this study. The self-reported prevalence of knee arthritis was 9.2%, and the prevalence of knee pain was 12.7%. Among these subjects, 12869 completed questionnaires and participated in the five times chair standing test. For knee arthritis patients and non-patients, the adjusted mean time to finish the test was 11.2 seconds, and 10.4 seconds, respectively, with difference of 0.8 seconds (95% CI 0.6, 1.0). Results were similar for knee pain subjects versus non-pain subjects, with difference of 0.7 seconds (95% CI 0.5, 1.0). Knee arthritis/pain significantly affects the basic physical activity of patients.

Name: Jordan, Melissa
Practicum Site: Vertex Pharmaceuticals
Location: Boston, MA United States
Title: Drug Safety Evaluation Intern

Introduction: The project was to design and implement a historical database using reports generated by outside contract organizations for some of the compounds Vertex has investigated since 1989. Vertex has done research on Cystic fibrosis, autoimmune diseases, cancer, IBD, neurological disorders and infectious diseases. The purpose was to pull all pertinent general, safety, and efficacy information on the compounds from the PDF reports containing preclinical trial information into a database where it could be searched and trends could be studied.

Methods: To do this, collaboration was required with LeadScope where I had to reformat their platform, generate a compatible user-friendly template and write a small content loader application to bridge the template with the database. The final step was to go through different reports, pull out the important information, enter it into the template, upload the template and then troubleshoot any issues with the queries. Searching databases, pulling pertinent information from studies and studying trends are all skills used by an epidemiologist.

Results/Outcomes: The outcome of this project was a functioning, searchable database with 27 historical studies worth of information including: compound level, site, efficacy, safety and study design information. This information will eventually be used by the research and development team to streamline all pre-clinical studies, find previously unseen trends, determine dose, establish a safety profile and ultimately help to deliver much needed safe, efficacious drugs to human clinical trials in a more efficient manner. This will eventually help thousands of people across all of Vertex's disease areas.

Name: Karlinskaya, Olga
Practicum Site: Cardno ChemRisk
Location: San Francisco, CA United States
Title: Epidemiology Intern

Introduction: Although several studies have reported anatomical differences between male and female hips, total hip prostheses do not vary by gender. Total hip replacement (THR) failure is quantified by surgery revision rate, which several authors have reported to vary significantly between males and females. A medical device manufacturer, under fire for some of its previous hip prosthesis designs, tasked Cardno ChemRisk to ascertain whether its future hip prosthesis designs should vary by gender. I performed a meta-analysis to determine whether a significant difference in revision rate exists between males and females.

Methods: Using strict eligibility criteria, I included all cohort studies in which the exposure was primary THR for any reason, the outcome was revision surgery for any reason, and the study adjusted for confounding by age and type of prosthesis. My systematic review included English and non-English articles identified from PubMed, Embase, and Scopus. I collected Hazard ratio data on THR revision, stratified by gender. Data were synthesized by random-effects meta-analysis and narrative review.

Results/Outcomes: I identified 12 studies, from 423 articles, to include in the statistical analysis. My findings indicate that the rate of revision surgery in males is 1.20, compared with females (95% CI: 1.08-1.34). Heterogeneity among studies was moderate, quantified by an I² of 51%. Thus, in this study, males were at a higher risk of revision surgery than their female counterparts. These results indicate that total hip prostheses may need to be structured differently for males and females.

Name: Kathman, Alexandra
Practicum Site: Boston University School of Medicine
Location: Boston, MA United States
Title: Literature Review

Introduction: Polycystic Ovary Syndrome is one of the most common endocrine disorders among females. It results in a hormonal imbalance in women that is thought to be one of the leading causes of female infertility. Overweight, obesity, and insulin resistance are strongly implicated in its etiology.

Methods: A comprehensive literature review was conducted to identify lifestyle factors that affect PCOS and to evaluate the success of lifestyle modification interventions. Varying standards of diagnostic criteria were assessed and compared.

Results/Outcomes: 24 articles were identified and analyzed. Diet and exercise intervention programs designed for modest reduction in overall body weight (5% to 10%) were as effective as severe weight reduction in reducing metabolic disease and improving ovulatory function. Therefore, modest lifestyle changes appear to represent the first line management for overweight patients with PCOS and may be more sustainable. This information will contribute to the evidence base, guide medical and public health practice, as well as provide recommendations to direct future research.

Name: Kern, Julia
Practicum Site: Brookline-Quezalguaque Sister City Project, Inc.
Location: Cambridge, MA United States
Title: Research Assistant

Introduction: In Nicaragua, the prevalence of Chronic Kidney Disease of Unknown origin (CKDu) is estimated to be between 17.9% and 21.1%. CKDu touches 50,000 individuals in late-stage disease worldwide and affects young men below the age of 30. The objective of this practicum was to investigate the community's knowledge and awareness of CKDu (its symptoms, causes, and available treatments), in addition to engaging with students on sexual health.

Methods: MPH students selected by the Brookline-Sister City Organization designed and implemented interviewer-administered questionnaires to obtain information on nephrotoxic drug use, natural remedies and peritoneal dialysis in relation to CKDu. Literature on etiology and symptoms of CKDu was reviewed to create questionnaires administered to 250 Quezalguaque residents in 25 comarcas. Pharmaceutical-specific questionnaires were given to 15 pharmacies and shops to evaluate nephrotoxic drug availability and distribution. In addition to CKDu research, a three-part sexual health education lecture (charla) was created based on the Peer Health Exchange curriculum. These were provided to 250 primary and secondary school students from selected classrooms in three schools.

Results/Outcomes: Substantial use of nephrotoxic medication among those suffering from CKDu was found. Also, 67% of CKDu participants worked in agriculture and professional occupation seemed to be protective of CKDu, although specific association between agriculture occupation and CKDu disease status is unknown. Among students involved in charlas, awareness of sexually transmitted infections and contraception use ranged from 30% to 89%. A report including findings and appropriate recommendations were provided to the local Quezalguaque administration and to the Brookline Sister City Project.

EPIDEMIOLOGY

Name: Kogan, Vadim

Practicum Site: Harvard Medical School

Location: Cambridge, MA United States

Title: Metrics and Evaluation Fellow

Introduction: The Zero TB Deaths Campaign is a project of the DGHS at Harvard Medical School that aims to create a grassroots movement to achieve Zero TB deaths in India. Together with two other BUSPH students, our team sought to catalyze this movement by partnering with local Tuberculosis NGOs to train and support a group of 26 activists to bring attention to key issues surrounding TB treatment access, diagnosis, and quality of care. This activist training institute sought to share resources and expertise with activists so that they could begin organizing their communities to advocate for policy change.

Methods: Working with the ZTB team, I conducted key informant interviews and lit searches to create a campaign memo, policy briefs, and an M&E plan for our activist campaign. I drafted MOUs and led partnership building efforts with academic institutions and Indian NGO's to train a network of TB activists who would kickoff the ZTB campaign. I led the planning of the community organizing portion of the ZTB training curriculum and oversaw the drafting of an Activist guide for this training.

Results/Outcomes: I oversaw a three day activist training institute from September 4-6 in Delhi that convened speakers, partners, and 26 former TB patients to learn leadership skills, community organizing, TB treatment literacy and legal rights, and media outreach. These activists left the training with personalized campaigns for their regions and a network of support, including a campaign director hired by our main TB partner, the partnership for TB Care and Control.

Name: Lee, Taeyeon

Practicum Site: Boston University Medical Center

Location: Boston, MA United States

Title: analysis of study of knee osteoarthritis and balancing function in elderly in China: CHARLS cohort / research assistant

Introduction: Knee arthritis increases in prevalence with age and prevents the elderly engaging in daily activities; however, large population based studies for older adults in China are not available.

Methods: We related static balancing function to prevalence of knee arthritis/knee pain from the survey data in China Health and Retirement Longitudinal Study (CHARLS, 2011 to 2012). The cohort included 13,521 people who participated in the static function test. Information of knee arthritis and knee pain was collected based on self-reports. Knee arthritis was only identified when both pain in knees and the diagnosis of arthritis by a doctor were present. The function of static balance was classified as four categories according to the performance in the test. A multinomial logistic regression was used to analyze the relation of knee arthritis/knee pain to capacity of balance, adjusting for age, sex, body mass index (BMI), education level, smoking and drinking history, history of injury, falling down and hip fracture, and Charlson comorbidity Index.

Results/Outcomes: The prevalence of knee pain and knee arthritis was 12.7% and 9.2%, respectively. Major impairment in static function, failure to all level of tests, was reported in 0.58% of the study population. The odds ratio of impaired static function in those who have knee pain was 1.71 (95% CI 1.26, 2.31) and 1.40 (95% CI 0.98, 2.00) in those who have knee arthritis (as compared to those who without such conditions).

Name: Leon-Chi, Lucero

Practicum Site: Boston Children's Hospital

Location: Boston, MA United States

Title: Research Coordinator for the Program to Enhance the Health and Development of Infants and Children

Introduction: Despite recommendations from the American Academy of Pediatrics (AAP) rates of screening, brief intervention, and referral to treatment (SBIRT) are low among pediatricians. The goal of this project was to better understand the practices and attitudes of pediatric primary care clinicians regarding SBIRT for adolescent substance use. In 2013, the AAP fielded a needs assessment survey to gather information regarding SBI among pediatric clinicians. The purpose of this practicum was to analyze the results of the needs assessment and subsequently, conduct key informant interviews to gain deeper insights into current SBI behaviors and practices.

Methods: In order to meet the goals of this project, several activities were completed: 1) cleaned the results from the needs assessment survey, 2) analyzed the clean data using SPSS version 20.0, 3) developed an interview guide for key informant interviews, 4) recruited participants for the key informant interviews who had indicated prior interest, 5) conducted audio-recorded key informant interviews over the phone, 6) analyzed the results of the key informant interviews, and 7) developed a report with key findings.

Results/Outcomes: The outcomes of this practicum include two presentations (one that summarized the quantitative analysis from the needs assessment survey and one that presented the qualitative analysis from the key informant interviews) and a written report that summarized both results to be disseminated to the team. Next steps will be to publish recommendations for better use of SBIRT methods among pediatric primary care clinicians.

Name: Maloo, Zehra
Practicum Site: Partners In Health
Location: Boston, MA United States
Title: Research Intern

Introduction: In 1987 the Food and Drug Administration (FDA) implemented a law that would allow drugs that had not yet been approved to be available to certain individuals through Compassionate Use (CU) and Expanded Access Programs (EAP). Use of these programs has not been documented in the United States. This project is the first large scale listing of CU/EAP drug use in the United States.

Methods: A Google and PubMed search was performed using the terms “compassionate use”, “expanded access” and “early access program”. Articles were reviewed for the drug name and disease associated with the drug. The approval date for the drug was then obtained through the FDA website.

Results/Outcomes: A total of 184 drugs were identified. Among these 162 (88%) have already been approved by the FDA and the remaining 22 (12%) are under FDA review; 57 (31%) are intended to treat cancer, 32 (17%) are for HIV/AIDS and 31 (16%) are for infectious disease. The majority of the identified drugs have been approved since 2000 (75%). Limitations of this analysis are that only drugs that were submitted for CU/EAP and were subsequently approved can be determined from the FDA website; drugs that were not approved are not listed. It is important to document the use of CU/EAP since these programs assure the accessibility of useful drugs to people who are in critical need of them.

Name: Okwali, Diana
Practicum Site: National Institutes of Health
Location: Boston, MA United States
Title: Summer Graduate Student Intern

Introduction: The Metabolic, Cardiovascular and Inflammatory Disease Genomics Branch (MCIDGB) is part of the National Human Genome Research Institute at the NIH. This branch studies the social and genomic determinants of complex diseases, with a focus on the effects of socio-environmental determinants on gene expression and cardiovascular disease morbidity and mortality among disproportionately affected sub-populations. To examine the pathobiology of cardiovascular diseases, the researchers combine biomedical informatics, noninvasive imaging, genomic epidemiology, and system biology.

Methods: The project I worked on was with the Minority Health Genomics and Translational Research Bio-Repository Database (MH-GRID). The MH-GRID dataset integrates genetic, behavioral and socio-environmental determinants with clinical assessments in minority patient cohorts. Data was collected on demographics, lifestyle factors psychosocial factors, and genetic information. My role was in data management and preliminary descriptive analysis of the MH-GRID database and other population-based data sets. I created SAS codes to produce data dictionaries, derive variables and score social determinant instruments as well created documentation for the datasets. In addition, I ran logistic regression models to perform exploratory analyses between variables in the dataset.

Results/Outcomes: The associations between the variables in the model cannot be discussed; however the results from the study will have significant impacts on public health. The study has increased the available genetic data on African ancestry populations, which is the most genetically diverse population in the world. The data will help to uncover genetic bases of disease in African ancestry populations that hasn't been explained by previous research studies that relied predominantly on European genetic samples.

Name: Penningroth, Benjamin
Practicum Site: Harvard Medical School
Location: Boston, MA United States
Title: Zero Tuberculosis Deaths: Evaluation of an Activist Training Institute

Introduction: Zero Tuberculosis (TB) Deaths is a Harvard Medical School initiative designed to reach zero TB deaths in India through a grassroots movement based on advocacy and activism. Together with two other BUSPH students, our team designed and implemented an Activist Training Institute for persons affected by TB and former TB patients. The goal of the institute was to build local activist capacities by equipping attendees with knowledge and skills to advocate for policy changes on a local, state and national level. In addition to helping with program planning and logistics, my role as a monitoring and evaluation fellow was to measure the success of the program and highlight areas for improvement for future Institutes.

Methods: I led the process of designing three one-page, post-training questionnaires for each day of training. The questionnaires were administered to 25/26 attendees after day one, 24/26 attendees after day two, and it was not administered on day three due to time. Questionnaires were a mix of short answer and scaled questions designed to capture participant's feedback on the training components to better inform future workshops.

Results/Outcomes: Preliminary results indicate that participants found the educational session on TB Patient Rights and the intro session detailing the need for a grassroots TB advocacy movement as most helpful. Participants identified Public Narrative: Story of Us and Now as a program component that needs to change. These results, along with the rest of the questionnaire data will determine future enhancements to the Institute curriculum.

EPIDEMIOLOGY

Name: Poon, Ka Lai

Practicum Site: New York City Department of Health and Mental Hygiene

Location: Queens, NY United States

Title: Summary and Analysis of Tick-Borne Diseases Reported Among NYC Residents 2012-2013

Introduction: The New York City's Health Code Article 11 requires the following tick-borne diseases to be reported to NYC Department of Health (NYCDOH) within 24 hours: Babesiosis (BAB), Anaplasmosis (HGA), Ehrlichiosis (HME), Rickettsialpox (RIP), and Rocky Mountain Spotted Fever (RMSF). Patients who are infected with tick-borne diseases often suffer from various unpleasant symptoms and their conditions can become fatal if left untreated. Since these diseases can pose serious threats to public health, it is important for NYCDOH to closely monitor their annual trend and identify risk factors. The main purpose of the internship was to describe factors associated with NYC residents diagnosed with tick-borne diseases in 2012 and 2013. This included clinical presentation, hospitalization, testing methodology and risk factors associated with the infections.

Methods: Data collected by standardized questionnaires was first entered into the Access and Maven databases. Data cleaning was then performed and SAS 9.3 was used to analyze the cleaned data. An annual summary report for each of the five tick-borne diseases was generated, which was essential for disease surveillance and enabled NYCDOH to provide educational materials for the public.

Results/Outcomes: In 2012, 28 cases of BAB, 19 cases of HGA, 11 cases of HME, 12 cases of RIP, and 7 cases of RMSF were reported in NYC. In 2013, 75 cases of BAB, 23 cases of HGA, and 15 cases of HME were reported in NYC and no cases for RIP and RMSF. Overall, most cases resided in Manhattan and traveled outside of NYC before disease onset.

Name: Rogers, Alexandra

Practicum Site: ARIAD Pharmaceuticals, Inc.

Location: Cambridge, MA United States

Title: Market Research Intern

Introduction: Lung cancer kills 1.38 million people each year. Anaplastic Lymphoma Kinase Positive, Non-Small Cell Lung Cancer (ALK+ NSCLC) is a rare form of cancer marked by a chromosomal translocation that creates a fusion gene. ARIAD Pharmaceuticals, Inc. has developed a drug, AP26113, which treats this rare form of cancer. In order to understand the marketability of this drug, it is important to determine the incidence of the disease both in North America and globally.

Methods: A literature review was conducted to understand the incidence of ALK+ NSCLC in North America, Japan, and EU countries.

Results/Outcomes: We found that 4.6% of North American patients with NSCLC are ALK+, 5.5% of European Union patients with NSCLC are ALK+, and 3.3% of Japanese patients with NSCLC are ALK+ for a given year. One limitation of this literature review was the fact that each study was included regardless of which method of analysis was used to determine ALK positivity. Immunohistochemistry (IHC), FISH Vysis Assay (FISH), and reverse transcription polymerase chain reaction (RT-PCR) were all used to determine ALK positivity. All were included in our review due to the fact that ALK positivity, determined by any of these methods, will ultimately allow the patient to receive the drug. A patient flow model was created using this ALK+ incidence data as well as data on the incidence of the different stages of the disease. This model allows ARIAD Pharmaceuticals to understand the number of patients that will be treated with AP26113 annually.

Name: Shah, Nishita

Practicum Site: Boston Medical Center

Location: Boston, MA United States

Title: Research Assistant, Atrial Fibrillation Cohort Study

Introduction: Atrial fibrillation (AF) is an irregular heart rhythm, and is a risk factor for heart failure and strokes. There are still a lot of unanswered questions regarding its etiology and how it affects overall quality of life. A cohort study is taking place to investigate the experience and symptoms related to atrial fibrillation that focuses on identifying and addressing racial disparities. The study's purpose is to examine the amount of time people spend in AF, their symptoms, quality of life, and medical history.

Methods: I was responsible for working with subject recruitment and enrollment, as well as contributing to the overall study design. I worked on optimizing recruitment into the study by contributing feedback to various methods such as developing a study brochure for clinics. I was responsible for meeting participants in the clinic to perform informed consent and enrollment. This involved conducting standardized medical and lifestyle interviews with subjects, as well as administering heart rhythm monitors.

Results/Outcomes: 89 subjects have been enrolled in the cohort study, with 44% identifying as black or African American and 47% as white. Most subjects experience other co-morbidities placing them at high risk for stroke, such as diabetes and hypertension. 59% of subjects are taking warfarin, the standard anticoagulant for controlling AF. As the study continues, the information collected will help inform better care techniques for patients with AF to help prevent stroke.

Name: Spilkia, Allison

Practicum Site: Boston Public Health Commission

Location: Boston, MA United States

Title: Boston MRC Program Manager

Introduction: A program of the Boston Public Health Commission, the Boston Medical Reserve Corps (MRC) is a community-based volunteer corps that prepares for and may respond to emergencies in Boston. Additionally, the Boston MRC seeks to ensure that all Bostonians, especially the most vulnerable, have access to the resources they need to stay safe and healthy before, during, and after a public health emergency. The purpose of this practicum was to evaluate the current status of the program, develop a new organizational strategy to increase member engagement, and obtain public funding for new volunteer opportunities and trainings.

Methods: I pooled information on volunteer demographics, skills, trainings, history of participation, and other factors from various sources. To increase volunteer engagement, I used this information to restructure the Boston MRC program around six functional groups that reflect the types of volunteer opportunities offered. To obtain federal funding for program development, I crafted a grant proposal for a Train-the-Trainer model that would allow Boston MRC members to provide emergency preparedness education within the Boston community.

Results/Outcomes: Interpretation of program data revealed areas for improvement and identified a core group of active members. This information will be used to guide the future direction of the Boston MRC. Restructuring of the program around functional groups allows for volunteer opportunities to be more narrowly tailored to members' interests, thus increasing engagement and participation. Additionally, we will use members' preferences to determine where to create additional volunteer opportunities. By the conclusion of the practicum, a decision will be made regarding our grant application for NACCHO funding to launch the Train-the-Trainer model.

Name: Vu, Cecilia

Practicum Site: Boston Medical Center

Location: Boston, MA United States

Title: A Practical Approach to Adapting the Patient Centered Medical Home to Address Psychosocial Adversity

Introduction: When ignored, psychosocial adversity can negatively affect patients' health outcomes and treatment success. The purpose of this study is to understand the perspectives of various hospital stakeholders to improve trauma-informed care within patient-centered medical homes.

Methods: From June to September 2015, 25 hospital workers (i.e. providers, quality improvement specialists, nurses, and medical assistants) and patients at Gunderson Health Systems in La Crosse, WI were interviewed in semi-structure formats for 30 min to one hour. Each interviewee was given a hypothetical case patient and answered questions about the scenario. Topics explored ways to ask difficult questions about psychosocial adversity, responding to the patient case, and retaining patients with trauma histories. Each interview was coded independently by two research assistants using Dedoose software and the discussed to agree on a final consensus. A total of 17 interviews were completely coded.

Results/Outcomes: From 17 of the 25 interviews, the major themes that emerged included (1) using the patient's preferred electronic means to remind them of appointments and medicine, (2) the importance of understanding patients' complex psychosocial and financial barriers to health, (3) building patient trust, and (4) risking privacy when documenting sensitive psychosocial topics. We aim for the results from this qualitative analysis to open discussion and inform policy for a more trauma-informed medical practice.

Name: Wang, Joyce

Practicum Site: MAVERIC

Location: Boston, MA United States

Title: Clinical Data Manager

Introduction: The Massachusetts Veterans Epidemiology Research and Information Center (MAVERIC) is a Cooperative Studies Program Coordinating Center (CSP CC) for large multicenter clinical trials in the Department of Veterans Affairs. Under the direction of a Clinical Data Manager, I contributed to the implementation of a randomized clinical trial (RCT) investigating the effect of lithium use on suicidality in depressed and bipolar veterans.

Methods: After familiarizing myself with the protocol, I created a protocol map, which charts the meaningful endpoints to support study and regulatory objectives. During the development and finalization of case report forms (CRFs), I used the protocol map to ensure each CRF accurately and consistently captured data as specified in the protocol. Next, I helped create a Study Specification Document in Microsoft Access to specify programming parameters for the electronic data capture system, which includes information on variables, instructions for edit checks, and other considerations for data entry. I also reviewed a data management plan for the study that specified the workflow process. Finally, under the direction of the study biostatistician, I independently programmed a CONSORT diagram using SAS code in order to create the Intention to Treat cohort.

Results/Outcome: By assisting with the development of study documents and databases during the start-up phase of this RCT, I was able to apply skills and concepts of study design I learned in classes. Further, these components will be vital for the conduct of the clinical trial, which is due to start in January of 2015.

EPIDEMIOLOGY

Name: Ward, Kristin

Practicum Site: Cambridge Public Health Department

Location: Cambridge, MA United States

Title: Division of Epidemiology and Data Services Intern

Introduction: The Division of Epidemiology and Data Services at the Cambridge Public Health Department (CPHD) monitors the health of the city of Cambridge by tracking disease and identifying emerging health issues. Case management, in partnership with the Division of Public Health Nursing, is one of Epidemiology's key roles, yet a lack of standardized protocols stymied the efficiency and speed of follow-up. Additionally, CPHD needed assistance updating the Cambridge Health Indicators 2015 publication, which compares a variety of health measures in Cambridge with those of Massachusetts and the United States.

Methods: I interviewed epidemiologists and public health nurses at CPHD and reviewed existing sources of written information to find discrepancies between what protocols are supposed to be followed and what protocols are actually followed. I used that to create new workflows, segmented by disease type (e.g., routine vs. urgent). I also tracked down surveillance data on national and local levels from a variety of government sources to update the Cambridge Health Indicators 2015 publication.

Results/Outcomes: Standardized workflows have been developed for routine, urgent, and foodborne illnesses with a special focus on the complex follow-up process for Hepatitis B. Protocols for outbreaks and post-outbreak reports are in development. Additionally, the Cambridge Health Indicators publication has been updated with the most recent available surveillance data and is on track to be published in January 2015.

Name: Abacan, Allyssa

Practicum Site: Baylor College of Medicine Teen Health Clinic

Location: Houston, TX United States

Title: Sexual Network Analysis with Men Who Have Sex With Men – Connecting the Dots

Introduction: BTHC is an adolescent clinic that provides reproductive and family planning services at little to no cost. For the Sexual Network Analysis (SNA) study, I assisted in data collection and analysis of the sexual and social networks of 37 study participants. The goal of the SNA study is to (1) examine patterns by which HIV is/could be transmitted within networks by identifying individuals or groups at high risk for HIV and (2) identify the venues where individuals recruit sex partners and examine structure of sexual affiliation. The purpose of this practicum was to assist with data collection, analysis and presentation of findings.

Methods: I worked with the principle investigator of the study to: (1) interview men who have sex with men, (2) input and cleaned data in excel and SPSS for data analysis, (3) analyze data, and (4) create a PowerPoint and poster presentation for an HIV/AIDS conference.

Results/Projected Outcomes: Data is now clean for data analysis. Excel and SPSS are available for the input of additional study participants. There are PowerPoint and poster outlines specifically for presenting the SNA study findings. Sexual and social networks can now be visualized with graphs created using R.

Name: Aguilera, Ana

Practicum Site: Grounds for Health

Location: Waterbury, VT United States

Title: Spring 2014 Program Intern, Asistente de Programas en el Peru

Introduction: As a part of Grounds for Health, an NGO that works to create sustainable cervical cancer prevention and treatment programs for rural coffee-growing communities, I assisted in the program implementation and evaluation of cervical cancer screening programs in the La Coipa district. I worked hand-in-hand with the Peruvian Ministry of Health and three national coffee cooperatives to build capacity in the public health system to more adequately prevent cervical cancer in poor, rural women.

Methods: I worked with the Program Manager and Community Coordinator in Jaen to: 1) train community health promoters on cervical cancer, visual inspection with acetic acid (VIA) screenings and cryotherapy treatment; 2) provide logistical support for cervical cancer screening campaigns; and 3) conduct the Most Significant Change evaluation process to identify major program successes.

Results/Outcomes: Grounds for Health can take my Most Significant Change evaluation report and disseminate it to all stakeholders involved in the program including: local communities and women, local health personnel, donors, partners, the Ministry of Health, the coffee cooperatives and anyone else who is interested in the program.

Name: Anger, Alison

Practicum Site: The Small Things, Inc.

Location: East Haven, CT United States

Title: Intern on No More Orphans Project

Introduction: The World Health Organization (WHO) has recently recommended use of misoprostol to prevent post-partum hemorrhage for women that cannot achieve a hospital delivery. The No More Orphans (NMO) Project in Nkoaranga, Tanzania is training traditional birth attendants (TBAs) to administer misoprostol immediately after delivery to prevent post-partum hemorrhage (PPH). Misoprostol's relative safety, ease of use and thermostability makes it ideal for use in regions such as Nkoaranga which lack trained health care providers and consistent access to a cold-chain.

Methods: During my practicum, I conducted literature reviews on best practices, reviewed materials related to PPH and collected demographic data on TBAs serving the Nkoaranga area. I created informational pamphlets and presentations to distribute in community, which I then translated into Swahili. Through the development and administration of pre-post survey, I assessed knowledge and current practices of TBAs. I facilitated procurement of 1 year supply of Misoprostol, conducted training of 43 TBAs on basic female reproductive health, PPH and the safe usage of Misoprostol, developed a sustainable monitoring plan for the continued implementation of the program.

Results/Outcomes: Forty-three traditional birth attendants were trained in basic female reproductive health, PPH and misoprostol use. Follow-up meetings one-month after training provided an opportunity to conduct a refresher training on materials and administration and to evaluate misoprostol use by TBAs. At the time of follow up meetings, no TBAs had administered misoprostol. A second follow-up meeting will be conducted at the end of 6 months to determine misoprostol use by TBAs trained in the program.

GLOBAL HEALTH

Name: Bane, Sunetra
Practicum Site: Pathfinder International
Location: Watertown, MA United States
Title: Research Assistant, qualitative data analysis for m4Change

Introduction: Pathfinder International is a global non-profit organization focusing on reproductive health and related health services. Pathfinder's mHealth department works with integrating technology solutions to improve the quality of health services and systems, to reach more clients with behavior change, interventions and streamline data collection and use. m4Change is a project within the mHealth department, implemented in 20 primary health centers in Abuja and Nasarawa, Nigeria. The project used an application on the CommCare platform to support community health extension workers (CHEW) providing antenatal care services.

Methods: I worked with the baseline (109 CHEW and 17 supervisor) and endline (33 CHEW and 18 supervisor) questionnaires administered to assess usability of the app. I learned how to use the NVivo data analysis software through tutorials and user guides. I then coded the surveys for quantitative responses, and for trends in qualitative responses. I analyzed the data, and started the draft of a working paper about the results. The data is being included in my Culminating Experience Journal Article. The article will be submitted for publication at the end of this semester (Fall 2014), and also submitted as a working paper on the Pathfinder website.

Results: Preliminary analysis of the application satisfaction data shows an increased health worker, supervisor and community satisfaction with the antenatal care services provided when the m4Change app was used. Health workers recommend the use of this application in other health facilities, and to the government of Nigeria. These results are being used towards further studies by Pathfinder about the value of mHealth apps in antenatal care delivery, and will also be presented at the mHealth Summit in December.

Name: Carey, Hannah
Practicum Site: Multnomah County Health Department
Location: Portland, OR United States
Title: STD/HIV/HCV Program MPH intern

Introduction: Multnomah County Health Department's (MCHD) STD, HIV, and Hepatitis C Clinic in Portland, Oregon is the only STD-specific clinic in Oregon and provides disease diagnosis and treatment, as well as active surveillance and partner therapy.

Methods: As the STD/HIV/HCV Program MPH intern I had two main assignments. (1) I provided research assistance for a phase three clinical drug trial for a new drug treatment for Gonorrhea and (2) I completed a summary report concerning the clinic's change in revenue, payor coverage, income, and patient demographic since the passage of the Affordable Care Act (ACA). As the only research assistant for the Melinta Therapeutics Gonorrhea drug trial, I performed a wide range of activities including subject interviews, subject vitals measurement, medical chart and results report organization, data entry, work with clinicians to complete medical histories and physical exam records, and shipping log completion. For preparation of the summary report I identified currently generated data reports, completed a literature review, reviewed websites and spoke with clinical managers to compare the scope of the MCHD's STD clinical services to other categorical STD clinics nationally and internationally.

Results/Projected Outcomes: My work with the Melinta drug trial contributed to critical ongoing research into Ceftriaxone-alternative Gonorrhea drug therapies, and my summary report provided the clinic with accessible and comprehensive information concerning the ACA's impact on the clinic and will serve as an informational resource for staff as well as a reference for future funding and programming decisions.

Name: Crable, Erika
Practicum Site: Fundacion Mexicana para la Salud (FUNSALUD)
Location: Mexico City (D.F.), Mexico
Title: Economic burden of diabetes mellitus in Mexico, Research Assistant

Introduction: The Mexican Health Foundation (Fundación Mexicana para la Salud, FUNSALUD) is a private non-profit think-tank in Mexico City. FUNSALUD aims to improve health policy and outcomes in Mexico through innovative scientific research. Diabetes mellitus has a major impact on Mexico's current health outcomes and is at the center of new policies. The growing prevalence of diabetes necessitates an analysis of the economic burden of disease on the macro level.

Methods: As a research assistant, I worked on a cost-of-illness study separately quantifying the direct and indirect costs associated with diabetes, each from the perspectives of the household, employers and the state. Direct medical costs include provider visits, medication, supplies and amputations amongst others. Indirect costs include the loss of income and productivity related to absenteeism, presenteeism, temporary and permanent disability, early retirement and premature death. Separately analyzing the direct medical costs and the indirect costs allowed us to determine what degree of the economic burden would be alleviated if various targeted interventions were in place to reduce prevalence of diabetes.

Results/Outcomes: The final report, which I co-authored in Spanish, will include the full analysis of our work including how various cost-modeling methods were implemented and recommendations. The goal of the report is to involve various sectors of the economy in sharing responsibility for implementing effective interventions that reduce the prevalence of diabetes.

Name: Dike, Nwabundo
Practicum Site: Dimagi, Inc
Location: Cambridge, MA United States
Title: Program analyst Intern

Introduction: CommCare is an open source, mobile and cloud-based platform that serves as a mobile health job aid for Community Health Workers (and other front line workers) and supports the collection and distribution of information. Dimagi is developing the CommCare certification program to promote standardized CommCare project implementation and successful execution.

Methods: We standardized the formatting of language on the CommCare help site and documentations and built certification tests in Commcare. In addition, we made improvements to certification tests and tutorials and collected feedback from pilot test takers. The use of e-learning platforms for certification was also researched.

Results/Outcomes: Test questions were reformatted based on feedback from test takers. Learning objectives and sections of the help site were revised. We are currently piloting innovative ways of presenting the material that test takers are required to learn in order to be certified. The certification program will allow organizations using Commcare to develop the skills necessary to build internal capacity to implement successful programs.

Name: DiRocco, Natalie
Practicum Site: Uganda Village Project
Location: Hummelstown, PA Uganda
Title: Monitoring and Evaluation Intern

Introduction: Uganda Village Project (UVP) is an international, grassroots NGO focusing on public health promotion for community health and development strategies in marginalized villages located in Iganga, Uganda. Their program addresses these pivotal areas: malaria, HIV/STIs, water, sanitation, and hygiene (WASH), family planning, and obstetric fistula. In 2009 UVP started the “Healthy Villages” program, an approach adopted after identifying 70 impoverished villages located in Iganga district. The healthy villages technique strengthens public health initiatives by collaborating with various stakeholders and stalwarts.

Methods: Alongside five team members and various community participants, I worked in the rural village of Buvule to plan, implement, and evaluate public health programs associated with UVP’s five main pivotal areas. Follow-up quantitative and qualitative data was collected using structured household surveys and observations, one-on-one interviews, and community focus groups. Data collection was used to analyze and compare Buvule’s health progress from previous baseline data collected. Data collection helped recognize zones with the most severe health concerns. Education sessions were informed and carried-out according to these results.

Results/Outcomes: Albeit many health issues still persist in Buvule, our SWOT (strengths, weaknesses, opportunities, threats) analyses and follow-up data collection exhibited slight improvements over the past year, especially in mosquito net and tippy-tap usage. Approximately 192 households were surveyed. We found coverage of hand-washing stations increased considerably, from 1.5% to 49% over one year. Mosquito net usage also substantially increased from 32% to 80%, from the previous year. This was most likely due to the government’s widespread dissemination of mosquito nets.

Name: Efronson, Emilie
Practicum Site: International Center for Research on Women (ICRW)
Location: Washington, DC United States
Title: Addressing Stigma and Gender-based Violence to Improve HIV Service Delivery to Key Affected and Vulnerable Populations in Guyana

Introduction: The International Center for Research on Women (ICRW) is a global research institute based in Washington D.C. ICRW's mission is to empower women, advance gender equality and fight poverty in the developing world. To accomplish this, ICRW works with partners to conduct empirical research, build capacity and advocate for evidence-based, practical ways to change policies and programs. ICRW and partners are currently working on the Guyana HIV/AIDS Reduction and Prevention Project (GHARP).

Methods: During my 3 month internship at ICRW I provided assistance and support to GHARP. Adult HIV prevalence in Guyana is 1.07%, yet the prevalence among men who have sex with men (MSM) is reportedly at 19.4%, and is reportedly 16.6% among female sex workers (FSW). As such, reducing the transmission of HIV and stigma and discrimination against these key populations has become a critical component of Guyana’s national response to the epidemic. Additionally, rates of gender-based violence are very high. In order to address these issues, I conducted a literature review on best practices of gender based violence programs and identified over 30 key documents. I also researched and identified 10 validated GBV screening tools.

Results/Outcomes: The literature and tools that I identified were adapted into a GBV screening tool specific to the needs of the Guyanese context, which has now been presented for discussion in Guyana. The next phase of the project will be to identify the appropriate CBOs/NGOs in Guyana to pilot the tool.

GLOBAL HEALTH

Name: Guttman-Slater, Maya

Practicum Site: Canadian Red Cross Society – Disaster Management Department

Location: Ottawa, ON

Title: Developing a National Catalogue of Disaster Supplies

Introduction: The Canadian Red Cross Disaster Management Department works on responding to disasters, primarily natural disasters, across Canada. A Supply Chain and Logistics Study for the Canadian Red Cross was undertaken in 2013 to conduct an end-to-end assessment of disaster management logistics activities and determine the structure best suited to support routine operation and surge capacity in response to a large-scale disaster.

Methods: My tasks were to assist in providing advice and support on the planning, implementation, monitoring and reporting of the Supply Chain and Logistics activities; and provide a forum to consider issues arising from the Zones concerning the implementation of the enterprise-wide Supply Chain and Logistics structure. I created a survey to elicit feedback from each CRC regional zone to investigate the most frequently used materials during disaster response, depending on the scale and type of disaster. I conducted an analysis of the survey responses and recommendations given by each respondent.

Outcomes: I created a catalogue of standard items that are sent during each disaster response. After receiving over 50 responses from the survey, I added to the catalogue the non-standard items that were most used. As part of the initial study in 2013, I researched and proposed an organizational structure for the new logistics and operations department at the national office. I performed an in-depth review of the national disaster response plan. I provided comprehensive feedback based on concepts learned in graduate classes.

Name: Johnson, Courtney

Practicum Site: Boston University Center for Global Health and Development

Location: Addis Ababa, Ethiopia

Title: Evaluating the Capacity of Civil Society Organizations (CSOs) to Improve the Health of OVC in Ethiopia

Introduction: The Evaluating the Capacity of Civil Society Organizations (CSOs) to Improve the Health of OVC in Ethiopia project is a 3-year longitudinal mixed methods study to see whether changes in CSO organizational capacity can predict organizational performance and health outcomes of OVC. The Measuring Organizational Development and Effectiveness (MODE) Tool was used to assess organizational development in 11 domains: Mission & Values, Leadership & Governance, Strategic Planning, Operational Planning, Management of People, Linkages & Networking, Logistics Management, Quality Management, Management of Information, Financial Management & Budgeting, and Financial Security & Fundraising.

Methods: As part of the research team, I conducted organizational assessments at various CSOs in Ethiopia using the MODE tool. During the assessments, in-depth interviews were conducted with CSO staff on the 11 domains, and staff surveys were administered to assess staff opinions about the organization and their work environments. Results from the MODE Tool and the staff survey were used to calculate an overall organizational development score.

Results/Projected Outcomes: After the assessment, each organization received an individualized report that tracked organizational capacity changes over the three years, and contained recommendations on how to improve their organizational capacity. For all organizations, the overall organizational development score increased from 2012 to 2014; with the largest score increase occurring between 2012 and 2013.

Name: Jones, Jerrilyn

Practicum Site: Boston EMS

Location: Boston, MA United States

Title: Training and Implementation of a First Responder Naloxone Program at Massport

Introduction: One hundred and fourteen people in the United States die everyday from drug overdoses, making it the leading cause of injury death in the country. In 2012, 53% of overdose deaths were due to pharmaceuticals with 72% of those deaths being specifically linked to opioids. In Massachusetts, the death rate from unintentional opioid overdoses reached 10.1 per 100,000 representing a 90% increase since 2000. Data suggests the trend will continue. These facts led Governor Deval Patrick to declare a public health emergency on March 27, 2014. Among proposed strategies to combat the issue was a directive requiring the opioid reversal agent, naloxone, be carried by all first responder personnel. The purpose of this practicum was to develop a first-responder naloxone program for Massport Fire, the first responding agency for Logan Airport.

Methods: Practices and procedures from applicable jurisdictions across the United States were used to generate a standard operating procedures guideline as well as a didactic training program to implement the use of intranasal naloxone (Narcan) by paramedics and EMTs at Massport. A train-the-trainer model will be used.

Results/Projected Outcomes: Since 2007, Narcan has been attributed to more than 2000 overdose saves in Massachusetts. Massport Fire is only one of several first-response agencies expected to have the ability to recognize and reverse an opioid overdose in the field. It is hoped that his training program will be an effective tool to implement the use of Narcan and could be adapted for use by other first-response agencies throughout the country.

Name: Kinsinger, Lindsey
Practicum Site: Global Health Corps - Dignitas International
Location: Zomba, Malawi
Title: Monitoring & Evaluation Officer

Background: For my practicum, I did a 13-month long Global Health Corps (GHC) Fellowship, as a Monitoring and Evaluation (M&E) Officer, with Dignitas International in Zomba, Malawi. During my practicum, I worked on several projects. The most impactful was a six-month operational evaluation to understand how health facilities in southern Malawi manage HIV defaulters. Extensive research has been done to understand HIV defaulters at the patient-level, but little to understand what organizational/facility-level approaches work best.

Methods: For this study, I developed the proposal and baseline survey, analyzed the results using R and Excel, and made evidence-based recommendations for improvement. The recommendations were used to develop new tracing tools for clinical staff to use. Our team developed the training materials for these tools, and initiated the orientation program in July 2014.

Results/Projected Outcomes: Minimizing HIV defaulter is important for individual health and community health. Through this project, (1) HIV clinics across Zomba have improved defaulter tracing tools; (2) the tools were approved by the Ministry of Health as a pilot, with potential for national expansion; (3) HIV defaulter rates should decrease in Zomba; (4) Publications are being developed from the preliminary study findings, so the information will be shared. HIV defaulters in Zomba, Malawi and the HIV clinics in the district of Zomba will be positively impacted by this work.

Name: Lawrence, Emily
Practicum Site: Helen Keller International
Location: Chakupat, Patan Dhoka, Nepal
Title: Research Intern

Introduction: The Mixed Farming System is the common practice in Nepal. The purpose of my internship with HKI was to understand how families in Bajura, Nepal, manage their livestock and backyard poultry and considerations they take into account when caring for their young children.

Methods: To carry out the assessment I completed the following activities: 1) completed a desk review of recent documents on “One Health” and livestock management, 2) designed a qualitative assessment for mixed farming households with young children in Bajura, Nepal 3) conducted three focus group discussions, three household mapping activities, three in-depth interviews and one key informant interview 4) collected and analyzed the information collected from the field 5) prepared a report on practices, key risk factors for human health, particularly women and children under two years of age and areas for a potential public health intervention, and 6) presented our findings to HKI staff at the annual retreat.

Results/Outcomes: The outcome of the qualitative assessment identified several key issues and opportunities for the implementation of an integrative approach to zoonotic disease control for both livestock and humans. Based on learning from these interviews several key actions were identified: 1) education on poultry cooping methods, 2) overall improvement of household, shed, and outdoor sanitation, 3) education on food and milk safety, and 4) proper disposal of livestock waste. These results will help HKI in designing future monitoring tools for their poultry program and provide information on the design of zoonotic disease prevention interventions in Bajura, Nepal.

Name: Lipton, Kerri
Practicum Site: Sergio Arouca National School of Public Health
Location: Rio de Janeiro, Brazil
Title: Researcher for the National Assessment on Access to and Use of Medicines

Introduction: Fiocruz is Brazil’s largest public health research institute. Nested within the Fiocruz campus lies ENSP, Brazil’s national school of public health. At ENSP, the Núcleo de Assistência Farmacêutica (NAF), the Center for Pharmaceutical Care, works to promote drug and pharmaceutical care policies through project development. Researchers at ENSP/Fiocruz and other institutions collaborated on the Pesquisa Nacional sobre Acesso, Utilização e Promoção do Uso Racional de Medicamentos no Brasil (PNAUM), the National Survey on Access, Use and Promotion of Rational Use of Drugs in Brazil. Survey responses were collected from 41, 433 Brazilians across all 5 regions of Brazil.

Methods: While working in the NAF department, I conducted literature reviews to learn more about Brazilian medicines policies pertaining to rational use of antibiotics. Using SPSS, I analyzed survey responses from the respondents who recently used antibiotics to assess compliance with a policy created by the Brazilian Health Surveillance Agency (ANVISA) in 2011 entitled Resolution 20. Resolution 20 states that only qualified prescribers, (i.e. medical professionals) can prescribe antibiotics, and outlines specific rules for pharmacies that distribute these medications.

Results/Outcomes: Although it has been over 3 years since the implementation of Resolution 20, 24.3% of respondents reporting having received antibiotics without a prescription. Compliance with the policy appears weakest in the North and Northeast regions of the country, where 35.1% and 35.7 % (respectively) of respondents reported having received antibiotics without a prescription. Nationally, 30.6% of respondents obtained antibiotics at private pharmacies without a prescription, versus 9.7% of respondents without prescriptions at public pharmacies.

GLOBAL HEALTH

Name: Lopez Cangas, Victoria
Practicum Site: Massachusetts Alliance on Teen Pregnancy
Location: Boston, MA United States
Title: Public Policy Intern

Background: Massachusetts Alliance on Teen Pregnancy focuses on advocating and supporting policies that support expectant or parenting teens. Their core belief is that being pregnant or being a teen parent should not deter young people from achieving lifelong goals and experiencing success. To realize this vision, the Alliance helps young people find the necessary resources to achieve their goals.

Methods: The Alliance is engaged in multiple community activities. In the Summer of 2014, the Alliance supported a new policy for expectant and parenting teens in Boston Public Schools. The Alliance spearheaded the community outreach essential to evaluate whether or not the policy was being adopted in the Boston Public Schools. Members of the Alliance attended wellness council meetings at BPS as well as coalition and group meetings that were essential in assessing the issues and developing new strategies to make this policy sustainable. The Alliance also organized the annual Lobby Day, where hundreds of teen parents and their supported rally at the State House to get more support from their legislators and representatives. Teen parents share their experience as teen parents to their legislators and representatives, and various organizations provide data demonstrating their needs. I assist in the preparations for Lobby Day by networking and establishing sponsorships, and assisting with event logistics.

Results/Outcomes: The ultimate foal of this work is to convince Massachusetts' legislators to include health education as a line item in the annual budget to help educate and support teens on sexual justice and reproductive health.

Name: Mbachu, Perpetua
Practicum Site: Cameroon Coalition Against Malaria
Location: Yaounde, Cameroon
Title: Summer Intern at MC-CCAM

Introduction: Malaria claims many lives of children under the age of five and still contributes to a reduction in productivity in the overall population of Cameroon. The purpose of the practicum is to contribute to the capacity of MC-CCAM to design, implement and analyze malaria control interventions. I worked on two key projects: Building Malaria Prevention (BMP) and CHW data verification.

Methods: I worked with MC-CCAM to develop a proposal for, design, pilot and implement a midpoint evaluation of the BMP project. With the evaluation, MC-CCAM could identify areas of improvement as the project proceeds to the next phase of its activities. The evaluation comprised of 1) a household headcount of all the household and household members in Minkoameyos, 2) rapid diagnostic testing for household members and provision of appropriate medication for positive cases, and 3) interviews with a sample of household heads. For the community health workers (CHW) data verification, we 1) authenticated data sheets submitted by CHWs during their home visits in health districts using a specified criteria and 2) provided progressive feedback on the home visits recorded, by community health worker, by community, and by health district. The verification allowed MC-CCAM to pinpoint any discrepancies in the home visit sheets that could jeopardize data reported to the Global Fund.

Results/Outcomes: I analyzed and wrote a report for the in-depth interviews. The interviews revealed pride associated with being part of the project. Upon completion, MC-CCAM intends to use the quantitative results of the evaluations for internal improvement of the BMP project.

Name: Mehrtash, Hedieh
Practicum Site: Management Sciences for Health
Location: Arlington, VA United States
Title: Practicum Intern at Center for Pharmaceutical Management, MSH

Introduction: The main focus of CPM is to increase access to and improve the use of pharmaceutical products (e.g., essential medicines, vaccines, laboratory testing kits, and other health technologies) and services that support these products. The practicum project involved performing a comparison of a country's Essential Medicines List (EML) with the WHO Model EML and inter-country comparison of medicines. The analysis focused on medicines used to treat cancer, cardiovascular diseases, and diabetes for 34 countries where MSH has a working network.

Methods: My responsibilities included data entry and analysis to perform a comparative mapping of EML's. This comprised three steps: 1) Comparison of medicines at the medicinal level 2) Comparison at product presentation level (tablet, syrup, injection) and 3) Identification of medicines and the product presentation that are not part of the WHO EML.

Results/Outcomes: The analysis completed during my practicum will allow MSH to better inform countries, especially those with limited budgetary resources, on strategies for improving access to medicines for non-communicable diseases and ensuring linkage of public sector procurement with their national EML.

Name: Mehrtash, Hedieh
Practicum Site: Global Oncology (GO)
Location: Boston, MA United States
Title: Public Health Practicum Student, Global Oncology, Queen Elizabeth Central Hospital

Introduction: Global Oncology (GO) is a non-profit 501c3 made of skilled professional volunteers ranging from physicians to designers to improve the quality of cancer care in low resourced-settings. Their work consists collaborating with partners to improve cancer care through, education, and research in resource-limited settings. Since January 2013, GO has had an ongoing partnership with Queen Elizabeth Central Hospital (QECH) in Blantyre, Malawi. As a result of ongoing discussions with QECH nursing staff, GO has committed to developing cancer educational materials for QECH's low-literate patient population. The practicum project involved the piloting of the "Cancer and You" patient education materials at QECH and the preparation of a program design for an impact evaluation in order to further assess distribution and effectiveness of the materials in low-resource settings.

Methods: In order to develop the bulk of the program design, it was necessary to 1) perform preliminary situational analysis to investigate the patient population 2) organizational assessment of the Oncology Ward at QECH 3) conduct preliminary focus group discussions with QECH to staff to finalize the patient education materials 4) to develop the monitoring and evaluation plan based on the Malawi equivalent-IRB application; COMREC

Results/Outcomes: Going forward, GO is committed to refining the evaluation in order to submit it to the IRB and COMREC board for approval. The cancer educational materials are currently being revised based on initial results and GO plans to expand the initiative in 2015 in order to potentially reach additional countries or patient populations.

Name: Nguyen, Colleen
Practicum Site: Boston Children's Hospital,
Location: Boston, MA United States
Title: Curation Intern

Introduction: The Ebola Virus Disease (EVD) outbreak began in March 2014, and continues to spread within West Africa and has led to autochthonous cases in Spain and the United States. HealthMap, an online disease surveillance system affiliated with Boston Children's Hospital and Harvard University, collects and stores online reports of infectious diseases around the world. In response to public concern over this outbreak, HealthMap created a centralized source of data encompassing situational context and disease spread.

Methods: HealthMap's automated system collects and organizes online media reports and other 'innovative' data sources. Data related to the outbreak was pulled into the system, analyzed, and disseminated through a centralized outbreak timeline website (healthmap.org/ebola). Additionally, visitors could choose to subscribe to receive daily email mailers with breaking news alerts, alongside alerts providing more contextual background on the progression of the outbreak.

Results/Outcomes: HealthMap's Ebola timeline site has received more than 600,000 unique page views since its creation. Ebola alerts coming into the system appear to follow a temporal clustering pattern around official report releases and milestone events. However, it is important to note that at times of significant reporting of other world news, the number of unique Ebola alerts coming into the system wanes. Consequently, the system may not be representative of the progression and situation of the outbreak on the ground.

Name: Nishtala, Arvind
Practicum Site: Boston Medical Center, Department of General Pediatrics
Location: Boston, MA United States
Title: Research Assistant

Introduction: Social determinants significantly influence health outcomes in children. There is little evidence-based research to guide providers to address social needs. We report on a study evaluating the efficacy of a clinic-based screening and referral system (WE CARE) on families' receipt of community resources for unmet basic needs.

Methods: We conducted a cluster randomized controlled trial at 8 community health centers (CHCs), recruiting mothers of healthy infants. In the 4 'WE CARE' clinics, mothers completed a self-report screener that assessed needs for childcare, education, employment, food, heat, and housing. Providers made referrals for families; unmet needs; staff provided requisite applications and telephoned referred mothers within one month to assess contact of resources. Families at the 4 control CHCs received usual care, which typically included basic social history questions and social work services. We analyzed results with generalized mixed effect models. I participated in data acquisition by providing mothers with the WE CARE screening tool and a follow-up questionnaire.

Results/Outcomes: 336 mothers were recruited, 168 per study arm. 90% of mothers reported at least 1 unmet need, 68% reported at least 2 needs. Significantly more WE CARE mothers received at least 1 referral at the index visit (70% vs 7%; $p=0.01$). At 12-month follow-up, more WE CARE mothers had enrolled in new community resources (39% vs 24%; $p=0.05$). A systematic screening and referral tool for social determinants within well-child care leads to receipt of more community resources, laying the groundwork for designing future programs that address children's social needs.

GLOBAL HEALTH

Name: Obregon-Schroder, Giselle

Practicum Site: Harvard Medical School

Location: Boston, MA United States

Title: Zero TB Deaths: Addressing the Global Tuberculosis Crisis through Activism, Advocacy and Community Organizing in India

Introduction: The Harvard Medical School Department of Global Health and Social Medicine is currently building a grassroots advocacy/activism movement called Zero TB Deaths (ZTB) to address the global tuberculosis (TB) crisis. Inspired by the achievements of the AIDS activist movements in the 1980's, the ZTB movement plans to demonstrate the effectiveness of community organizing and activism in demanding improvements of failing national TB programs. The first ZTB campaign will take place in India, where the Revised National TB Control Programme (RNTCP) has failed to properly address the country's disproportionate burden of MDR-TB.

Methods: Two other BU MPH students and I formed a research, metrics and evaluation team to assess the feasibility and acceptability of TB activism in India. Our internet research (46 assorted news articles, reports, journal articles, radio interviews) and key informant interviews (2 Indian TB NGO leaders) led to the development of a campaign memo and campaign metrics, which will provide a roadmap for the impending India ZTB campaign.

Outcomes: We partnered with Project Axshya and The Partnership for TB Care and Control to create a network of TB activists who will initiate the campaign. Together we created an Activism Training Institute where trainees learned leadership skills, community organizing, advocacy, media outreach, TB patient rights, and the goals of the ZTB movement. The three day Training Institute was held at the University of Chicago Center in Delhi, India from September 4 through 6, 2014 and produced a cohort of 26 TB activists.

Name: Ptak, Malgorzata

Practicum Site: Massachusetts General Hospital

Location: Boston, MA United States

Title: Approaching Complex Multisystem Medical Conditions Integratively through an Electronic Health Record

Introduction: Autism spectrum disorder (ASD) is a multisystem condition that affects the brain. Currently, ASD is not fully understood, however, clinical, medical, and electrophysiological differences may help diagnose ASD earlier than existing standards of using behavioral assessments. This would grant earlier access to interventions. Documenting an integrative research focused approach was the goal of Open Medical Institute (OMI) when creating OpenMedNet (OMN), a HIPAA compliant electronic health record (EHR). This novel EHR bridges researchers with clinicians, providing the best, most up-to-date care for patients. With this focus in translational medicine, biomarkers can be tracked alongside behavioral assessments and health trajectories to provide a more holistic understanding of patients, especially with multisystemic conditions not fully understood, such as ASD, fibromyalgia and chronic fatigue syndrome (CFS).

Methods: During this experience, I collected information on fifteen validated assessments used for ASD to be uploaded to OMN, contacted roughly eight publishing companies on rights to use assessments in OMN, coded two customized TRANSCEND questionnaires, assisted in creating a high-level screener for incoming patients, provided feedback on overall user interface, and created a comprehensive list of twenty databases focusing on integrative and alternative medicine. This list was supported by weekly/biweekly conference calls organized by a non-profit, Epidemic Answers, with integrative and functional medicine doctors across America.

Results/Outcomes: The project is still ongoing. Currently, the focus is to create a more useable interface for physicians. The work completed will provide a foundation for future physicians looking for a more translational and integrative approach to medicine.

Name: Sanders, Stefanie

Practicum Site: Center for Global Health and Development

Location: Boston, MA United States

Title: Ethiopia Organizational Development Study/Data Collector

Introduction: Measurable associations between organizational capacity and the ability to produce health outcomes have not been previously evaluated prior to the start of the Ethiopia Organizational Development Study. The study designed and used the Measuring Organizational Development and Effectiveness (MODE) tool to examine linkages between changes in NGO capacity, organizational performance and child (specifically HVC) health outcomes in Ethiopia. The third and final round of data collection for the longitudinal study took place during the summer of 2014.

Methods: As a member of the data collection team, I assessed Ethiopian NGOs in Addis Ababa and Hawassa using the MODE tool, which included administering staff surveys, confirming each organizational profile, and conducting interviews and record review. Data were entered into CSPro. Individualized reports were produced outlining strengths and weaknesses across 11 domains for each organization. Reports highlighted specific action steps to take in order to develop capacity in each domain.

Results/Outcomes: My partner and I completed 12 assessments, entered 100 staff surveys, and produced 12 full reports. Statistical analysis of the results is ongoing, yet improvements were noticed in organizational development processes between year one and year three of the study. The relationship between organizational development scores and health outcomes remains unclear and further research is necessary.

Name: Shah, Rupal Ramesh

Practicum Site: Kibong'oto Infectious Diseases Hospital and Initiatives Inc.

Location: Kibong'oto, Siha District, Tanzania and Boston, Massachusetts

Title: Training and Implementation of Nursing Standards of Care

Introduction: Kibong'oto Infectious Diseases Hospital is a national hospital that focuses on caring for patients with tuberculosis. The hospital continues to treat patients with other infectious diseases but primarily serves as a tuberculosis treatment facility. I was responsible for working with the nursing department in order to implement nursing standards of care consistent with the Ministry of Health.

Methods: For the first two weeks, we led a training session with a task force of nurse managers. During that session we assessed the current hospital nursing practice and the improvements needed to guide the provision of nursing care. We then developed performance standards that would measure the quality of nursing care that was being delivered at the hospital. We analyzed the Ministry of Health standards and determined what is being implemented. My role was to provide overall coordination for the task force to develop the standards of care.

Results: We developed medical record forms that would be utilized by nurses throughout the hospital. The forms consisted of general patient demographics, patient assessment data, notes for nursing diagnosis, goals of care, implementation, and evaluation of care. They also contained a non-tuberculosis drug administration form and a nursing administration medication form. After developing the forms, we conducted a training session to understand the basic nursing process, nursing diagnosis, planning of care, implementation of care, and evaluation of care. After the training, a pilot process was implemented to practice usage of the forms. Finally, we developed compliance reports to measure the outcome of the pilot study.

Name: Shah, Rupal Ramesh

Practicum Site: Pamoja Tunaweza Research Centre and Queens University

Location: Moshi, Kilimanjaro District, Tanzania and Ontario, Canada

Title: Healthcare Facilities Assessment in the Kilimanjaro Region

Introduction: Pamoja Tunaweza Research Centre started out as a women's centre where they provided support to women who were affected by violence. The centre's work included also providing healthcare services and peer support. Over the past few years, the centre's focus has grown. It now provides healthcare services to women and men and conducts research.

Methods: One of the projects that I worked on was the Cervical Cancer Health Systems Study. This study was to determine the barriers to effective cervical cancer control, from a patient and healthcare professional perspective. A major component of the study was to conduct key-informant interviews in Swahili, which I assisted with. Another project was to conduct an assessment of the healthcare facilities in the Kilimanjaro region. This assessment provided an overview, based on checklists, of each healthcare facility.

Results: For the Cervical Cancer Health Systems Study, we completed interviews at about six sites. From the data gathered, we ascertain that there is a range of barriers that prevent patients from accessing screening services starting from transportation to lack of knowledge about the services. For the Healthcare Facilities Assessment I conducted interviews at twenty sites. The data has helped to understand the various components of administration, starting from the level of funding each facility receives to the services provided to the number of emergency patients they tend to on a weekly basis. The data obtained from the interviews will assist us in understanding the state of healthcare service provision in the Kilimanjaro region.

Name: Stevens, Sarah

Practicum Site: Girls Aware Club Project

Location: Kenya

Title: Program Officer

Introduction: Despite many programs in Kenya aimed at reducing adolescent pregnancy, schools in rural districts are often neglected. As a result, many adolescent girls in these areas still become pregnant, leading to elevated school dropout rates, health complications for both the mother and child, and even morbidity and mortality due to unsafe abortions. GABS is a fledgling program designed to reach schools in these rural areas and provide sexual and reproductive health education to secondary school students through a peer educator model. Thus the goal of this practicum was to perform an in depth situational analysis, that GABS will use to apply for grant funding.

Methods: I completed the following activities during the practicum: 1) lead four focus group discussions with both community members and students to better understand the way they view the problem and their needs; 2) conducted ten key informant interviews with selected peer leaders and school administrators; 3) administered a school-wide survey to 100 students to establish baseline knowledge on reproductive health 4) designed and implemented a sample peer education lesson.

Results/Projected Outcomes: Through the completed work, the team identified a pressing need for a continued sexual and reproductive health intervention. The community is receptive to help and the students are enthusiastic about receiving and participating in the program. The GABS team is writing grant applications and will hopefully soon have a full-time representative to facilitate the program's next steps.

GLOBAL HEALTH

Name: Sun, Jennifer

Practicum Site: SER Alzira de Aleluia

Location: Rio de Janeiro, Brazil

Title: WASH Promotion & Creation of an Early Childhood Development (ECD) mHealth App in the Slums of Rio de Janeiro

Introduction: SER Alzira de Aleluia is a local NGO offering education, job training, family support groups, psychological counseling, and youth sports activities to the community of Vidigal, a favela (slum) nestled between two affluent neighborhoods in Rio de Janeiro. An estimated 1.6 million Brazilians reside in favelas like Vidigal, and face insurmountable public health challenges as a result of socioeconomic conditions like poverty, violence, crime, and social exclusion. Impoverished conditions and lack of good water, sanitation, and hygiene (WASH) practices make favela children particularly prone to infectious diseases and experiencing early childhood developmental delays.

Methods: I created a WASH campaign by conducting a literature review, building trust with community members through over 40 community consultations, and participating in the NGO's weekly Family Support Group for caregivers. These interactions with community stakeholders informed work on a free mobile health (mHealth) application for favela caregivers to screen 0-38 month-old children at risk for developmental delays. The creation of the ECD mHealth app also included conducting a literature review of ECD screening tools and mHealth in poor urban settings, building the app using previously validated tools, translating components, piloting the app, and making changes after receiving feedback.

Results/Outcomes: I produced culturally-appropriate WASH educational materials, conducted 7 classes for caregivers, and distributed 100 flyers throughout the favela. Piloting the app introduced ECD concepts to over 15 caregivers, but the long-term goal is to promote ECD education to all favelas and help identify/refer at-risk children once the app is finalized.

Name: Ubani, Boma

Practicum Site: Center for Global Health and Development

Location: Boston, MA United States

Title: Intern; Data Collector

Introduction: The Center for Global Health and Development (CGHD) conducted a study on the capacity of NGOs serving highly vulnerable children in Ethiopia to examine the linkages between changes in NGO capacity, organizational performance, and child health outcomes. The study was conducted over a span of three years, has enrolled 44 local NGOs in Addis Ababa with branch offices across Ethiopia, which are receiving funds from a variety of donors, including USAID, Irish Aid, etc.

Methods: I worked alongside 7 BUSPH student interns to conduct one-day assessments using the Measuring Organizational Development and Effectiveness (MODE) tool at each NGO. The tool included three data collection points: (1) staff surveys, (2) organizational profiles, and (3) interview and record reviews. The team also developed individual reports for each NGO, outlining the strengths and weaknesses of the organization. The report prioritized organizational domains for capacity building and provides specific action steps to take in order to improve capacity in each domain.

Results/Outcomes: The data collected with the summer 2014 team adds to the body of work generated over the past two years. Analysis of the development trends is still ongoing, although preliminary results suggest statistically significant difference between 2012 and 2014. Overall, the data showed only weak associations between health performance and capacity building. The results should eventually be able to demonstrate the reliability of the MODE tool as a measure of organizational capacity and relationships with child health outcomes.

Name: Wiles, Michelle

Practicum Site: Brookline-Quezalguaque, Nicaragua

Location: Brookline, MA United States

Title: Research Assistant

Introduction: For at least twenty years, the department of Leon and other areas of Central America have been impacted by an increase in the cases of chronic kidney disease of unknown origin (CKDu). While the cause is still unknown, important information on community perceptions of disease origin will be imperative in testing hypotheses of disease origin and designing community-based prevention programs. Under the partnership between Brookline, Massachusetts and Quezalguaque, Nicaragua, with the guidance of local health officials, other health needs related to oral health and sexual health were identified, and interventions were developed and implemented in the community.

Methods: With a team with 5 other MPH students, we developed a household survey about knowledge and perceptions of the origins and treatment options for CKDu, to develop a prevention program for the disease; we interviewed local pharmacies and health centers about their use of nephrotoxic medications, to develop an education program on the proper use of pharmaceuticals; and we taught sexual education classes in the three secondary schools in Quezalguaque.

Results/Projected Outcomes: Results of the CKDu household surveys will be used to further investigate origins of the disease, develop a prevention program for the community, and be used to educate pharmacies and health centers on feasible treatment options for disease. After the sexual education classes were taught, a marked improvement in knowledge based on pre- and post-tests administered to students indicated an improvement in knowledge of sexual health, demonstrating the importance and effectiveness of continued sexual health classes in school.

HEALTH POLICY & MANAGEMENT

Name: Barsanti, Lauren

Practicum Site: Massachusetts General Hospital

Location: Boston, MA United States

Title: Project Manager, MGH Strategic Planning: Improving Care for Patients with Substance Use Disorders

Introduction: Massachusetts General Hospital's (MGH) mission is to deliver excellence in patient care, advance that care through innovative research and education, and to improve the health and well-being of the diverse communities that it serves. As part of that mission and as a result of its most recent community health needs assessment and strategic planning process, the hospital launched an innovative joint inpatient/outpatient initiative to improve the care of MGH patients diagnosed with substance use disorders.

Methods: As a member of the Executive Implementation Team, we collaborated with working group chairs to manage the project's timeline, budget, and the deliverables of six implementation working groups. The role also included responsibility for coordinating the hiring process for the permanent project manager, inpatient social worker, and recovery coach positions, including drafting job descriptions, screening resumes, and conducting initial interviews.

Results/Outcomes: The Addictions Consult Team (ACT) accepted their first consults from inpatient medical floors on September 30, 2014. As of October 2014, the team has hired a permanent project manager, ACT social worker, and three recovery coaches to more effectively link inpatients to the outpatient setting and community resources. Initial analysis of the project's impact on length of stay and readmission rates is ongoing throughout FY15.

Name: Canelas-Miller, Dane

Practicum Site: Boston Medical Center

Location: Boston, MA United States

Title: Reducing Unnecessary Laboratory Tests for Hospital Inpatients, BMC

Introduction: Many routine blood tests for hospital inpatients are unnecessary and do not change their care path. Waste results in terms of money for the test, time for providers and stakeholders, and blood for patients that is linked with anemia-associated poorer outcomes. The purpose of this practicum is to determine why overtesting occurs and to explore possible interventions within BMC.

Methods: Following a literature review and quality improvement project, I have worked with a BMC resident team to design and implement interventions in medical units around the hospital. These interventions include intern education specifically about lab ordering, increased discussion within resident teams, and test cost awareness.

Results/Projected Outcomes: The pilot test, exploring an intern-resident discussion and literature review intervention, resulted in over \$200,000 saved in four medical units extrapolated through the year at sustainable reduction rates. This same reduction saved 32 liters of patient blood. Our work resulted in a curriculum change as we presented this topic as part of an intern conference. Ongoing data collection will highlight the success of individual interventions. We received a Lown Institute Young Innovators grant in order to continue implementing this intervention in BMC.

Name: Core, Olivia

Practicum Site: Boston Medical Center

Location: Boston, MA United States

Title: Infectious Disease Intern at Boston Medical Center

Introduction: As part of the internship in Infectious Diseases, I worked alongside my supervisor using the MDPH Electronic Library Reporting and Communication Provider Portal to observe the entry of STD lab results for patients tested at our clinic. Using patients' charts, we checked to make sure the correct information was reported, such as: insurance information used at time of visit, whether or not they saw a nurse, and if they received any medications.

Methods: We notified the counselors and nurses of the patient's results to help determine if they need to return for treatment. We also reviewed patient information who had positive lab results in our Microsoft Access database to provide feedback to the Massachusetts Department of Public Health (MDPH) on why this Public Health Clinic is important in this population, which shows why we need the funding to keep the clinic open. We then interpreted data within Excel to show the demographics of the patients who come into both our STD Clinic and our Project TRUST clinic from 1/1/13-6/30/14 to compare the differences in the two.

Findings: After comparing the demographic data from our two clinics, it is evident that the Project TRUST clinic site receives more homeless, transgendered, injection drug users, and patients who have experienced domestic violence. Although they do not see more patients than are STD clinic, their demographics are widely different, mainly because you can walk-in off of the street and get tested in the same day without making an appointment.

HEALTH POLICY & MANAGEMENT

Name: Demuth, Courtney

Practicum Site: Veterans Affairs Boston Healthcare Systems

Location: Brockton, MA United States

Title: Health Systems Administrative Student Trainee

Introduction: Veterans Affairs Boston Healthcare System (VABHS) is a highly complex level 1A healthcare organization. As part of the array of services offered at VABHS, comprehensive gender-specific care is provided to female veterans through the Primary Care (PC), Women's Health (WH), and Gynecology (GYN) departments. However, the relationship between these departments is not cohesive. As a result, several critical problems have been identified, the most significant of which is the workflow concerns of Dr. Najmosama Nikru. The practicum focuses on reducing waste in the Gynecology clinic workflow in order to optimize workload.

Methods: Application of a Lean Six-Sigma DMAIC strategy: DEFINE; Creation of a Project Charter and Root Cause Analysis, MEASURE; Process Mapping, Gemba walks, and the identification of population and procedure data, ANALYZE; Comparative analysis of other VA 1A facilities, and the creation of a Spaghetti Diagram and Catchment Area Map, IMPROVE; Devised a PICK Chart to evaluate potential improvement ideas, and CONTROL; Turning over recommendations to the process owners to implement gains identified.

Results/Projected Outcomes: Ascertaining waste in workflow is critical for Dr. Nikrui so that she may work to her license without practicing to excess and still address the needs of her patients. Suggested opportunities for improvement include; fewer sites for care delivery (100 hours of wasted surgeon time were identified based on unnecessary travel), monthly patient management meetings between PC/WH/GYN, hire and/or train a nurse practitioner to take on lower-skilled services, and train a resident to develop the future state of the GYN clinic.

Name: Hoek, Diana

Practicum Site: MA Department of Public Health

Location: Boston, MA United States

Title: Title V Maternal Child Needs Assessment

Introduction: The Massachusetts Department of Public Health Bureau of Family Health and Nutrition conducts a statewide comprehensive needs assessment in preparation for the Title V Maternal and Child Health (MCH) Block Grant application. The findings of the needs assessment are used to identify priorities of the MCH population for the 5-year period of the grant. One area of focus to inform the needs assessment is the impact of healthcare reform including the continued increase in healthcare costs, widening disparities, changes in healthcare infrastructure, workforce development, emergency department over-utilization and the evolution of healthcare reform.

Methods: A literature review, review of organizational websites, key informant interviews, workgroup discussions and a presentation of findings were used to inform key Department of Public Health management staff about the impact of healthcare reform on current MCH priority needs and trends.

Results/Outcomes: Based on the analysis, it is recommended that needs assessment priority areas be reviewed in the context of healthcare reform. The vast majority of the Massachusetts population has health insurance, access to a regular source of care and services. Disparities in health insurance coverage and access have decreased. Emergency department over-utilization has also decreased. The trend towards consolidation of healthcare has not yet affected access. Challenges remain though with increasing healthcare costs and shortages of primary care providers.

Name: Kamalia, Radhika

Practicum Site: Children's Hospital Boston

Location: Boston, MA United States

Title: Quality Improvement Intern

Introduction: PPOC is a preferred Boston Children's Hospital Community of Care Member and organization, made up of more than 250 physicians in over 80 privately owned, autonomous pediatric primary care practices in Eastern Massachusetts - from North of Boston to Metro West to Southeastern Massachusetts and Cape Cod. PPOC offers patients and families a wide variety of practices of different sizes, patient populations, and approaches to care - as well as a history of collaboration and innovation that has helped to improve the performance of all member practices

Methods: One of the key projects that I worked on during this semester was creating a website in collaboration with the Medical Home program manager and Team of QI consultants. The website's primary goal is to help the care coordinators identify key resources in their communities, have information on clinical practice algorithms and on quality improvement best practices recommended by the PPOC. The website was a bid to support and expand care coordination efforts.

Results/Projected outcomes: This website will be pilot tested in a group of care coordinators who have 5-7 years of experience in the field. These care coordinators will then rate the website for usability and helpfulness in identifying resources. After their feedback, improvements will be made to the website again.

HEALTH POLICY & MANAGEMENT

Name: Kirk, Mia
Practicum Site: NARAL Pro-Choice Massachusetts
Location: Boston, MA United States
Title: Political and Organization Intern

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

Methods: The three main goals of the practicum were 1) mobilize and educate MA residents on the Women's Health Protection Act (WHPA)(S. 1696), 2) campaign for pro-choice champions running for office re-election in MA, and 3) contribute to research in defense of An Act Relative to Healthy Youth (S. 190, H. 1063). WHPA mandates that no state legislation can be passed that restrict a woman's access to abortion. An Act Relative to Healthy Youth mandates that any sex education offered in MA public high schools be age appropriate and medically accurate.

Results/Outcome: In support of WHPA, 1,000 signatures were collected from registered MA voters, a letter to the editor was submitted to the Boston Globe, and research and campaigns on two MA representatives were conducted. Extensive research was completed on sex education curriculums in school districts across MA. The research was presented to NARAL interns and staff. In addition to these activities, An Act to Protect Access to Reproductive Health Care Facilities (S. 2281) was passed and signed into law. This was a direct result of the advocacy work that NARAL did after the Supreme Court Hobby Lobby rulings. Throughout my internship at NARAL, I have been a part of each stage of the policy process, from development and research, advocacy, and implementation.

Name: Lambert, Joanna
Practicum Site: East Boston Neighborhood Health Center
Location: Boston, MA United States
Title: Operational Efficiency Intern

Introduction: East Boston Neighborhood Health Center is one of the largest community health centers in the country, with approximately 300,000 patient visits per annum. As such, the clinic processes a high volume of referrals on an annual basis. As EBNHC has grown, the Appointment and Referrals Management Department has been unable to reflect sufficiently on optimal staffing levels, standard procedures, automation, and efficiency. The department seeks to review its productivity and effectiveness to benefit employees, internal/external providers, and patients alike.

Methods: Data were collected, examined, analyzed, and recommendations delivered in three areas of focus; operational workflow, department metrics, and provider and patient interface and resources. Shadowing and interviews were conducted with team leads, staff, physician leaders, and I/T specialists. Research data were gathered from Epic, Clarity, intranet and shared drives, hard copy records, and supplemental sources. Analyses and recommendations were delivered as job aids, procedures, graphical analyses, FTE modeling, Visio workflows, and more.

Results/Outcome: Through the course of this project, several significant operational changes were made, including centralization of customer calls and the decision to automate work distribution through Epic workqueues. Impending developments such as Care Everywhere/e-faxing, referred-to entities' shift to Epic, and Real Time Eligibility for insurance approvals will continue to aid in operational efficiency and consistency. Small and large-scale strategic recommendations were delivered to the VP of Operations based on SWOT analysis and research and data analytics, so that developed work may be put into place by new manager in the coming year.

Name: Mangan, Thomas
Practicum Site: Massachusetts Department of Public Health, Government Affairs
Location: Boston, MA United States
Title: Government Affairs Fellow

Introduction: The Massachusetts Department of Public Health (DPH) is the state agency with a mission to "prevent illness, injury, and premature death, to assure access to high quality public health and health care services, and to promote wellness and health equity for all people in the Commonwealth." DPH promotes, implements, develops, and enforces a wide range of policies to foster a healthier Massachusetts citizenry.

Methods: I worked closely with the DPH Government Affairs team over the course of my practicum. A few of my responsibilities included: 1.) analyzing current and proposed health policies based on cost, access, quality, and equity; 2.) attending legislative debate and hearings at the State House regarding relevant legislation and topic areas; 3.) tracking bills pending before the Legislature and developing succinct and focused bill comments and position statements; and 4.) facilitating policy discussions amongst programs, bureaus and senior staff.

Results/Outcomes: An excel database tracking current legislation, a policy brief for the commissioner regarding advanced practice nursing (APRN) independent practice authority, drafts of DPH blog posts, and drafts of legislative reports which include current policy limitations and future recommendations.

HEALTH POLICY & MANAGEMENT

Name: Marcum, Carly
Practicum Site: Kaiser Permanente
Location: Oakland, CA United States
Title: Graduate Health Policy Intern

Introduction: As the graduate health policy intern at Kaiser Permanente's (KP) policy think tank, the Institute for Health Policy, I worked with health policy analysts to develop projects for dissemination to Kaiser Permanente leaders as well as a wider health policy audience. At the Institute, I worked to develop two KP Policy Stories, a Leader Briefing on the topic of Affordability, and other observations or blogs for publication on the Institute's website.

Methods: During my practicum, I was the lead writer on two KP Policy Stories: one titled Disparities in Hypertension Control in African Americans as well as one focusing on Telemedicine. The first KP Policy Story on disparities explores the presence of health disparities in health care organizations as well as potential solutions to the problem. This story focused on a Kaiser Permanente intervention targeted at African American patients with hypertension and how it has led to reductions in health disparities. In addition, I was the project manager on a Leader Briefing that will be distributed to Kaiser Permanente leadership teams later this year. This document highlighted the topic of health care affordability, described ways to define affordability, as well as examples of how it can be put into action within the organization.

Results/Outcomes: These projects contributed to Kaiser Permanente's overall mission by taking prominent health policy issues and making them more understandable for health care leaders so that they are more informed and knowledgeable in their decision-making.

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

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

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

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

Name: McCusker, Meaghan
Practicum Site: Boston Children's Hospital
Location: Boston, MA United States
Title: Center for Neuromodulation at Boston Children's Hospital

Introduction: The practicum revolves around the creation of the Neuromodulation Center at Boston Children's Hospital, the first center of its kind within the pediatric population. This is an emerging field with widespread applications in brain mapping, as well as therapeutic treatments in highly prevalent conditions, including epilepsy, pain, autism, post-stroke, and depression. Importantly, the objective of the Neuromodulation Center is to provide innovative and helpful procedures to patients in need of care.

Methods: In working with the medical director, types of procedures were identified within the Neuromodulation Center. Additionally, in coordinating with the department director, billing specialist, and coding specialist, a business plan was established. In regard to the budget, estimates of costs and revenue based on projected patient volume were forecasted. Additionally, in working with the billing specialists, projected insurance coverage was reviewed and organized. Lastly, administrative staff was trained regarding insurance authorization and scheduling procedure.

Results/Outcomes: Within this practicum, the Neuromodulation Center at Boston Children's Hospital was evaluated and established. This work has been instrumental in analyzing the viability of the center with the objective of providing helpful and needed medical care. The medical director now has an established business plan to provide innovative medical procedures to patients in need of care through the Neuromodulation Center.

HEALTH POLICY & MANAGEMENT

Name: Mobley, Breighl

Practicum Site: Boston Medical Center, Department of Family Medicine

Location: Boston, MA United States

Title: Financial and Strategic Growth Analysis of an Integrative Medicine Program within a Hospital Setting

Introduction: The Program for Integrative Medicine and Health Care Disparities is an independent research, education and clinical program within Boston Medical Center. In my role as Clinical Services Coordinator, my practicum focused on developing a five year business plan for the program's acupuncture services.

Methods: This project involved working with a BMC budget manager and SPH accounting professor to develop a Profit/Loss statement based on financial and volume projections. Interviews with the program's director helped to incorporate his overall vision for the program into the plan. Consulting the hospital's Marketing Department helped me develop a sustainable marketing strategy for acupuncture services.

Results/Outcomes: I found that in spite of the evolving financial guidelines around acupuncture, it is possible to operate a cash-based, financially viable and accessible acupuncture program for low-income patients. These findings are important for three reasons. (1) They offer a road map for the growth of one of the program's most lucrative services for the next five years. (2) The plan presents the program as a financially attractive option for investment from the hospital given the significant potential to turn a profit from a relatively small investment to cover acupuncture expenses. (3) This plan still aligns with the program's stated goal of making integrative health services available to all regardless of ability to pay.

Name: Morrill, Dominick

Practicum Site: Boston Medical Center – Pediatric Ward

Location: Boston, MA United States

Title: Improving "Meds-in-Hands" Delivery Rate

Introduction: "Meds-in-Hand" is an initiative on the pediatric ward at Boston Medical Center that seeks to provide pharmacist-delivered medications to pediatric patients, per patient/family consent, prior to discharge from inpatient care. The purpose of this initiative is to eliminate, or at least mitigate, barriers that impede the efficacious administration of prescription medication outside the hospital domain. Through this practicum, we endeavored to increase the delivery rate by simplifying workflow processes for residents, improving communication between the ward and outpatient pharmacy, and educating families about the benefits of this program.

Methods: This practicum involved comprehensive research of care delivery improvement interventions for inpatient care, with a particular focus on workflow processes. Based on this research, and through the application of "Plan, Do, Study, Act" (PDSA) cycles, we tested various interventions designed to improve delivery rate.

Results/Predicted Outcomes: Our primary intervention, which involved replacing the fax-based ordering process with one utilizing the established electronic ordering system in conjunction hospital pagers, produced positive results in the first months following implementation. Since the "Meds-in-Hand" process must be taught to new residents each rotation (approximately every 4 weeks), these results indicate that the new, more rapid, process can be learned and applied without sacrificing quality or accuracy.

Name: Murphy, Kelli

Practicum Site: Boston Medical Center

Location: Boston, MA United States

Title: Implementation of Transitional Care Management Process Intern

Introduction: The Cancer Center at the Boston Medical Center (BMC) provides high quality care to a diverse patient population. One of the main objectives for the Cancer Center, and the BMC as a whole, was to reduce the number of patient readmissions. As an intern with the Cancer Center, I worked on implementing a transitional care management (TCM) billing process to both reduce the number of patient readmissions, and increase revenue for the department.

Methods: I worked collaboratively with staff members in the Cancer Center through conducting TCM research, drafting revenue analyses and process flow maps, and conducting interviews with people from other departments within BMC. My research included figuring out the rules for TCM billing. I used the information that I gleaned from various people involved with the established TCM billing process within the cardiology department to create a rough draft of a potential TCM billing process within the Cancer Center. In addition to drafting a process flow map, I conducted a financial analysis on the potential increase in revenue for the Cancer Center if the TCM process were to be implemented.

Results/Outcomes: The TCM billing process is well on its way to being implemented; however, the results of the implementation will not be available for more than six months. The TCM process will be rolled out tentatively by the end of December, and hopefully it will successfully reduce the number of patient readmissions, and also increase revenue for the Cancer Center at the BMC.

HEALTH POLICY & MANAGEMENT

Name: Neitzschman, Robyn

Practicum Site: Vertex Pharmaceuticals

Location: Boston, MA United States

Title: Healthcare Resource Utilization of Patients with Cystic Fibrosis (CF) who Initiate Treatment with Ivacaftor

Introduction: Vertex is a biotechnology company dedicated to the development and commercialization of new medicines for people with serious illnesses. One of Vertex's approved medicines, Ivacaftor (Kalydeco®), has been used to treat CF patients with specific CF mutations. The practicum goal with the HEOR department is to investigate the disease and healthcare burdens associated with CF by using insurance claims data to 1) measure healthcare resource utilization, and 2) evaluate these data as surrogate markers for health outcomes.

Methods: Studied concepts of budget analysis and medication adherence. The concepts were applied to an analysis of real world healthcare data provided through de-identified, private health insurance claims for patients who take Ivacaftor. By analyzing claims data from 6 months before treatment through 6 months after treatment, conclusions and key messages were provided to the department about the impact of Ivacaftor on healthcare utilization among CF patients. Review of a statistical analysis plan (SAP) for a Phase 4 clinical trial protocol enabled participation in the design of a SAP that would capture some non-absolute, quality of life survey data important to health outcomes evaluation.

Results/Project Outcomes: A reduction in healthcare utilization was associated with Ivacaftor initiation in patients with identified CF gene mutations. High medication adherence rates to Ivacaftor during the 6 months of treatment may have contributed to clinical benefits observed through reduction in healthcare utilization. Limitations: these results may not be generalizable to all insured or uninsured CF populations. Not all clinical data are included in administrative health claims.

Name: Osei-Poku, Godwin

Practicum Site: AIDS Action Committee of Massachusetts

Location: Boston, MA United States

Title: Program Evaluation Data Analyst

Introduction: Homelessness is a major barrier to access to healthcare for persons living with HIV/AIDS. Non-Profit AIDS service organizations such as AIDS ACTION Committee recognize this important barrier and have programs specifically directed at providing housing opportunities to persons living with HIV/AIDS. These programs are funded through the US Department of Housing and Urban Development (HUD) and its partner agencies. The objective of the practicum was to develop systems to ensure the timely, high quality and streamlined collection of Housing Management Information System (HMIS) data elements as required by HUD.

Methods: As a program evaluation data analyst I maintained current and ongoing expertise regarding required HMIS data standards. Led the implementation of these data standards for HUD funded programs. Worked with program managers and directors to integrate HMIS data elements, and other required data collection into program workflow processes. Assisted in developing and building tools within an electronic database to ensure the accurate collection of required data as needed by funding sources. Trained staff on HMIS data standards, and other required data on an ongoing basis.

Results/Outcomes: I assisted the program evaluation manager in updating an existing client advocacy assessment to include new HMIS data standards. I will also develop an in-house manual based on National HMIS data standards to ensure accurate reporting to HUD.

Name: Park, Victoria

Practicum Site: Quintiles Consulting

Location: Cambridge, MA United States

Title: Consulting Analyst Intern

Introduction: Quintiles is the world's leading provider of biopharmaceutical services. The organization helps to transform drug development and commercialization by linking business strategy, industry expertise and deep data to deliver unique and impactful business insights. The Market Intelligence group works closely with sponsors to understand their marketplace and provide effective opportunity assessments, identify and model new product acceptance, strategic positioning, behaviorally based market segments, and product forecasting, and maximize value using linked model revenue/pricing techniques to develop communications platforms and competitive readiness and response analyses.

Methods: As a Consulting Analyst Intern within Decision Modeling Consulting, all required onboarding activities including, but not limited to trainings on company background, BioPharma industry background, IBM SPSS, statistics, Provenance, Microsoft Excel and PowerPoint were completed. The internship involved assisting Market Research Analysts, Senior Analysts, Managers, and Directors with materials development, fielding, data procurement, in-depth interviews (IDIs), tele-depth interviews (TDIs), qualitative and quantitative analysis, and building final reports. In addition, research and analysis was provided for a white paper on personalized medicine focusing on oncological drugs that treat breast cancer, colorectal cancer, lung cancer, and melanoma.

Results/Outcomes: 1) A completed final report with all data findings, analyses, and evaluations delivered to the client via a PowerPoint presentation; 2) A completed report detailing the research and findings for a portion of the white paper; 3) A final PowerPoint presentation delivered at the end of the internship on the aforementioned portion of the white paper that will be used in consideration for a full-time position with the organization.

HEALTH POLICY & MANAGEMENT

Name: Perry, Jed V.

Practicum Site: Veteran's Affairs Boston Healthcare System

Location: Jamaica Plain, Massachusetts, USA

Title: Hospital Administration and Management Intern

Introduction: In case of a federal audit, the VA Boston Healthcare System (VABHS) reviews to see if policies are up to date and in line with both local and federal practices and regulations. Upon review, the office of the Associate Chief of Staff for Education assessed that the current resident meal policy needed to be reviewed and updated to adhere to the current local and federal practices. Therefore, the purpose of this project was to create an accurate policy for resident meals.

Methods: In order to complete this project, both a Process Map and a Fishbone diagram or PPOEM (People, Process, Operator, Equipment, and Materials) was utilized. The process map was useful in creating both the procedural and responsibility sections of the policy. It helped organize the steps needed to distribute, acquire, use, and document the process of a meal ticket. The Fishbone diagram also helped with the procedural and responsibility sections of the policy by making it easier to visualize key stakeholders in the process.

Results/Outcomes: An accurate and up to date resident meal policy has been created that meets both local and federal practices and regulations.

Name: Sabshon, Sarah

Practicum Site: Massachusetts State House, Representative Jeffrey Sanchez

Location: Boston, MA United States

Title: District Affairs Intern

Introduction: Chairman Jeffrey Sánchez is the State Representative of the 15th Suffolk District and House Chair of the Joint Committee on Public Health. Chairman Sánchez's district has large minority and low socio-economic populations. Often these populations are not given a voice in the legislative process, even on matters that greatly affect them, such as gun violence. During this practicum, district-level work was brought together with state-level policy efforts to illustrate how community organizations can play an integral role in legislative policymaking.

Methods: During the practicum, Rep. Sánchez's office built partnerships with several community organizations formed by survivors of gun violence. Office staff met with representatives from these organizations on multiple occasions in stakeholder meetings to solicit input on existing and future gun violence legislation. Research on gun violence prevention interventions in other states, focusing on policy recommending bodies, programs targeting social determinants, and participatory/grassroots efforts was conducted.

Results/Outcomes: Based on research and community feedback, a legislative amendment was drafted and filed to address the concerns expressed by community partners, including a lack of participation in policymaking, despite intimate experience with gun violence, as well as an absence of legislative strategies focused on public health and prevention. While the legislative amendment was not included in final gun violence legislation passed by the legislature in July 2014, this process cultivated better relationships with community organizations and taught community members how to work within the legislative process.

Name: Sayeed, Meena

Practicum Site: Sg2

Location: Skokie, IL United States

Title: Summer Associate

Introduction: Sg2 is a healthcare analytics and consulting firm that provides its clients with forecasting data on healthcare trends and the solutions to address these trends. As a Summer Associate on the Intelligence team, I worked alongside their clinical leaders and experts to create resources based on the Impact of Change data-forecasting tool.

Methods: I worked on two large projects. First, I assisted in putting together a service line publication based on the forecasting data on five disease families and their changing trends. Second, I put together an internal report on the behavioral determinants of healthcare, mapping the way our clients engage with patients throughout the healthcare process. As healthcare delivery systems are shifting and patient care methods grow in scope, it is important for hospitals to be aware of the innovative ways in which they can utilize new care delivery models and tools to engage their patients. By highlighting different ways to engage healthcare customers, healthcare systems can reinvent the way patients navigate their care.

Results/Outcomes: At the end of my practicum, I was published in the General Medicine Service Line publication, which mapped five disease families, their inpatient and outpatient trends and strategies that hospitals could use to leverage their resources and address these changes. I also created an internal report on Behavioral Determinants of Healthcare and gave an internal presentation to the company on my findings. I presented on how this topic related to many questions our clients had on how behavioral determinants could impact care methods.

HEALTH POLICY & MANAGEMENT

Name: Shaverdashvili, Salome

Practicum Site: Massachusetts General Hospital

Location: Boston, MA United States

Title: Administrative Intern at the Massachusetts General Hospital, Department of Radiation Oncology

Introduction: The Department of Radiation Oncology at Massachusetts General Hospital has led the way in developing and implementing the most innovative and effective radiation therapies in the world. As part of Mass General's multidisciplinary cancer center, the radiation oncologists closely work with surgical oncologists to develop optimal treatment plan for each patient. The department serves about 500 patients a day across its main and satellite locations.

Methods: As an administrative intern, a) to ensure successful implementation of the contracting process, I identified liabilities for our department and created a list of deadlines for each deliverable; b) wrote an article for the department's monthly newsletter; c) developed an orientation presentation for the new employees; d) compiled quarterly safety report to address patient safety; e) estimated and operationalized the implementation of snacks in waiting areas; f) created schedule templates and list of activities for the observing visitors of the department; g) to identify issues with MD communications, I assisted supervisor to develop a process flow map; h) coordinated 20+ professional staff to attend all day workflow process improvement workshop and co-led workshop with supervisor.

Results/Outcomes: Understanding of the efforts needed to support daily needs of top healthcare executives; facilitation of MD communications to ensure safe care for patients; insight on managing a well-coordinated delivery system as a whole.

Name: Sokol, Jessica

Practicum Site: Veterans Affairs Boston Healthcare Systems

Location: Boston, MA United States

Title: Health Systems Administrative Trainee

Introduction: Working closely with senior leadership at VABHS, the primary focus of my practicum is to (1) improve Disruptive Behavior Prevention Programs (DBPP) to drive best practices and (2) reduce waste in the Gynecology Clinic (GYN) workflow in order to optimize workload.

Methods: (1) Create a streamlined patient-generated disruptive behavior tracking system, revise the procedure manual, and audit DBPP to determine the extent to which they managed violent incidents. Read through large bodies of literature, participate in committees, manipulate raw patient and facility data and conduct stakeholder interviews. Continuously improve the system and influence changes. (2) Conduct stakeholder interviews and evaluate patient and comparable IA facility data. Apply LEAN thinking: project charter, root cause analysis, process map, gemba walk, spaghetti diagram and catchment area map.

Results/Outcomes: (1) Turned an antiquated system of tracking behavior into a self-sustaining, meaningful system, which influences clinicians' decisions and increases safety. Results drove emergency teams to respond quicker, standardize type and stock of medications, and improve reporting forms. Positive feedback enabled buy-in to deploy teams to other services and review the system quarterly. New members receive the manual and the audit set-up DBPP for success during a real audit. (2) Identified the system wasting over 100 hours of the surgeon's time due to unnecessary travel between facilities. Recommend fewer sites of care, monthly patient management meetings among departments, hire and/or train GYN skilled NP, and train a resident for the future state of GYN.

Name: Sutton, Brittany

Practicum Site: Boston Medical Center Pediatrics Department

Location: Boston, MA United States

Title: Project RESPECT NAS Quality Improvement Project

Introduction: Project RESPECT at Boston Medical Center provides obstetric care and addiction treatment to pregnant women with both ongoing/histories of substance abuse. Many of the infants born to women in Project RESPECT are exposed to opioids prenatally, and experience Neonatal Abstinence Syndrome (NAS). Under the direction of the Dr. James Moses and Tahlia Wolfgang, I was tasked to continue efforts towards increasing the amount of time NAS moms spend at bedside as a part of an initiative to improve non-pharmacological techniques.

Methods: I was given the names of nine local residential treatment centers to set up meetings with and gather information. This included (but was not limited to): meeting times, dosing schedules, transportation means, curfew, and length of program. I attended meetings with the NAS Quality Improvement team to learn about current state in improving NAS non-pharm techniques. Together with a fourth year medical student, we are working towards the development of an information card, packet, and potential soft-contract between BMC and NAS moms.

Results/Outcomes: My review of the treatment plans at the residential treatment homes found that there are substantial variances between treatment homes. This makes it difficult to create a consistent time for BMC to be able to expect moms at infants' bedside. It is our hope with the creation of these documents, we will help streamline the process of gaining a mutual understanding between BMC and moms regarding when they are able to be at bedside, and how BMC can help them to accomplish this.

HEALTH POLICY & MANAGEMENT

Name: Teague, Karen

Practicum Site: University of Massachusetts Medical School

Location: Worcester, MA United States

Title: Research Intern

Introduction: The Center for Health Law and Economics (CHLE) at UMass Medical School is a highly sought after private agency that assists public agencies and non-profit organizations in transforming health reform visions into reality. CHLE provides expertise in a variety of areas, including health law and economics, policy impact analysis, and the structuring of new legal and financial frameworks. CHLE's mission is to assist states and organizations in designing and implementing solutions and policies to increase the access, affordability, and quality of care, especially for vulnerable populations.

Methods: Vermont Choices for Care Policy Brief: 1) Conducted research related to the topic of nursing facility transition and diversion. Reviewed academic articles, white papers, and government documents. 2) Assisted in development of qualitative study methodology through results of literature review and by contacting applicable researches and state agency personnel. 3) Assisted development of interview guide by identifying key topic areas and drafting interview questions. New Hampshire (NH) Health Cost Project: 1) Calculated Medicare DRG rates for NH ambulance claims data. 2) Determined which fields were missing in the claims data. 3) Analyzed data for outliers. 3) Creation of charts to visualize trends in data.

Results/Outcomes: Both projects are ongoing. For the Vermont project, data was collected and will be used for recommendations during the policy brief. Data analyzed for the New Hampshire project will be used to draw conclusions regarding variations in ambulance pricing and usage by county. Once the New Hampshire data is collected, it will be used on a website to increase price transparency.

Name: Voutsiotis, Alexandra

Practicum Site: Massachusetts Behavioral Health Partnership

Location: Boston, MA United States

Title: Program Analyst for the Massachusetts Child Psychiatry Access Project (MCPAP)/Massachusetts Behavioral Health Partnership (MBHP): Focus on Primary Care/Behavioral Health Integration.

Introduction: The Massachusetts Behavioral Health Partnership (MBHP) manages mental health and substance use disorders services for MassHealth members across the Commonwealth. The Massachusetts Child Psychiatry Access Project (MCPAP) works to make child psychiatry services accessible to primary care providers with timely access to consultation and, if necessary, transitional services into ongoing behavioral health care. MCPAP has begun implementation of the Positive Parenting Program (Triple P), which is designed to help parents handle challenging behaviors. MCPAP is providing the training and coordination for Primary Care Triple P, focusing on behavioral health clinicians co-located or integrated within primary care practices.

Methods: Primary activities centered on development of the Primary Care Triple P program evaluation data collection process, including the creation of the database matrix, data entry, and tracking of provider response. This involved regular communication with providers regarding data documentation, program certificates and materials. The monthly telephone consultation program was implemented through topic development, scheduling and call facilitation. Providers were identified for Primary Care Triple P recruitment for future training. Information gleaned from policy-level meetings for integration of mental health services into primary care contributed to these efforts.

Results/Outcomes: The first quarterly report for the Primary Care Triple P program was produced in collaboration with the MCPAP Director and submitted to the Department of Mental Health. In addition, a brochure for Primary Care Triple P was created for use by primary care providers and families.

Name: Wineland, Carolyn

Practicum Site: Milford Hospital

Location: Milford, CT United States

Title: Hospital Administration projects in policy, Risk Management, and Human Resources

Introduction: Milford Hospital is a small community hospital attempting to maintain its status as one of the last few independent community hospitals in Connecticut. Over the summer of 2014, the hospital was preparing for a visit from the Joint Commission. The hospital's policies were very outdated and needed to be updated and standardized. Additionally, Risk Management had to address various problems that came up unexpectedly such as depositions, autopsy complications, and addressing communication problems among medical staff. Lastly, Milford Hospital needed a continuing medical education program to offer its staff.

Methods: In order to complete these projects, training was completed on updating policies and each hospital was updated systematically. For Risk Management issues, staff reached out to parties involved and conversed with lawyers about issues. In order to institute a continuing medical education program, close communication with the education company allowed for the appropriate choosing of courses that would be most relevant for Milford Hospital medical staff. Additionally, the courses were completed so that questions from staff could be answered when the program was eventually implemented.

Results/Projected Results: Each of Milford Hospital's policies were updated appropriately, ensuring the hospital's preparedness for an evaluation by the Joint Commission. Various Risk Management issues were improved and some were completely resolved. Milford Hospital successfully rolled out the continuing medical education program, offering its staff the opportunity to earn credits for free.

HEALTH POLICY & MANAGEMENT

Name: Wright, Shanika

Practicum Site: Brigham and Women's Physician Organization

Location: Boston, MA United States

Title: BWH Post Acute Strategy intern

Introduction: Brigham and Women's Health Care (BWHC) has rolled out the Skilled Nursing Facility (SNF) "Value" strategy under the larger Post Acute Strategy. The SNF value strategy was created to improve care transitions, communication and to better coordinate care for patients discharged from BWHC to a subset of its highest volume SNF facilities. There is a need to better understand the cohort of BWHC patients discharged to this subset of SNF's. The BWHC mini SNF collaborative was formed with 6 SNFs with the greatest volume of discharges from BWHC.

Methods: Under the direction of the Medical Director for Care Transitions at Brigham and Women's Hospital (BWH), I helped determine the data elements that were needed/available to better understand the BWHC population discharged from BWH to a SNF. I also met with various stakeholders of the BWHC mini SNF collaborative work group to create a data plan for the first mini SNF collaborative meeting.

Results/Outcomes: My work has provided a dashboard for BWHC's first mini SNF Collaborative meeting which involved representatives from each of the 6 SNFs in the collaborative. I have also provided an analysis for the Medicare SNF waiver expansion initiative at BWHC. The next steps include understanding data from a new stand-alone system which provides Real-time awareness/registry of all BWHC patients receiving at a non-acute facility.

MATERNAL & CHILD HEALTH

Name: Christison, Marquita
Practicum Site: Prevent Blindness America
Location: Boston, MA United States
Title: Assistant to the Regional Director

Introduction: Children (birth-5 years) are at a higher risk of visual problems that go undetected, because many children are not aware of their vision problems and/or cannot communicate them. Massachusetts mandates vision screenings before a child starts kindergarten (between 3-5 years old). In this practicum, I worked with Children's Vision Massachusetts, a coalition dedicated to improve access, systems, and community education at various levels.

Methods: A pilot study to evaluate the testability and feasibility of screening children 6 months-3 years old will be carried out in a 12-month period. I participated in phase I of the pilot study by collaborating with a team of investigators to develop a questionnaire to address vision issues in children. I assisted in administering questionnaires and collecting data from parents of Early Head Start participants in the greater Boston area. An optometrist at various Early Head Start locations administered a vision screen to children 6 months-3 years.

Results/Projected Outcomes: Results of the survey along with the results of the vision screening will be used in the continuing phases of the pilot study. Next steps will include use of an electronic screening tool and comprehensive eye exam to test specificity/sensitivity on the target population. Long-term results will be used to make recommendations to alter current practices and policies of vision screenings for children. One in five children in Boston has a vision problem with earlier detection and treatments we can improve outcomes and ensure the best future for them.

Name: Corbet, Alexandra
Practicum Site: Boston University School of Public Health
Location: Boston, MA United States
Title: Co-Investigator

Introduction: The Binding Health Project (BHP) is a student-led research initiative founded in 2013 by myself and three other Boston University students. We established BHP to investigate the mental and physical health effects associated with chest binding, primarily among transgender and gender non-conforming populations. Binding refers to the process in which an individual compresses or binds the chest, often as a means of gender expression. While binding provides the individual with a number of benefits, associated physical health effects have not yet been studied. To address this gap in research, BHP designed and distributed a survey intended to obtain qualitative and quantitative information on the range of effects associated with binding.

Methods: I first conducted a formal literature review on the topic of binding and relevant transgender health issues to inform and contextualize our research questions. Following the completion of data collection, I worked with team members to code over two thousand responses for thematic similarities using qualitative analysis software. Finally, I created a formal presentation outlining the BHP's work thus far. We hope to present our findings at the 2015 Philadelphia Transgender Health Conference and will use this presentation if accepted.

Results/Outcomes: BHP intends to publish the findings for both academic and layperson audiences. We are in the process of data analysis with the goal of submitting a manuscript by early 2015. BHP's findings will begin to fill a large gap in the literature and enable individuals, communities, and providers to better promote the health of those who bind.

Name: Day, Jacquelyn
Practicum Site: Planned Parenthood League of Massachusetts
Location: Boston, MA United States
Title: Abortion Services Training Management System Coordinator

Introduction: I completed my practicum as Abortion Services Training Management System Coordinator at PPLM's Health Services Department. The scope of my practicum involved: updating and creating new content for the Abortion Services Training Manual, constructing an internal, online training management system for transparency within the agency, facilitating a training of the trainer for the new system (eight staff members in attendance), and evaluating the implementation of the training and new training system.

Methods: The purpose of editing and updating the Abortion Services Training Manual was to provide revisions to adhere to new as well as providing internal cultural competency by ensuring the manual was gender neutral. The creation of the internal, online training management system was to enable managers, trainers, and trainees to seamlessly communicate about training status and increase efficiency in scheduling staff. These two projects culminated in a training of the trainer (TOT) to provide education and support around utilizing this new system to train staff. The TOT enabled trainers that were working with staff and patients to practice using the new system and completed pre and post assessments.

Results/Outcomes: Upon completion of my practicum, there was overall growth in knowledge and confidence in using the new training system. I was able to gather feedback after the training system was implemented and made recommendations to the Health Center Manager and Abortion Services Assistant Manager for adjustments. I was able to develop website infrastructure building skills, expand upon my excel knowledge, and overall gain a deep insight into health center training and operations.

MATERNAL & CHILD HEALTH

Name: Dobson, Kiana

Practicum Site: Department of Housing and Community Development

Location: Boston, MA United States

Title: Commonwealth of Massachusetts Integration Task Force Intern

Introduction: The Massachusetts Department of Housing and Community Development (DHCD) is currently collaborating with other state agencies and stakeholders in an Integration Taskforce (ITF), with the goal of initiating systemic reform to prevent and end homelessness among survivors of domestic and sexual violence. These populations do not always receive the supports they need, in part because of fragmented formal response systems. Understanding the system that survivors must navigate is a necessary step toward improving it.

Methods: I defined the system by the governmental agencies involved in the ITF: DHCD, and the Departments of Transitional Assistance (DTA), Children and Families (DCF), and Public Health (DPH). I drafted organizational charts of the agencies and programs that could potentially “touch” a client once they entered the system. I edited this chart with feedback from members of the ITF, and incorporated a flow map of the state emergency assistance system provided by an ITF member. Finally, I charted the referral patterns that occur within and between the governmental agencies.

Results: The Client Flow Map is a visual representation of current referral patterns, service options, and housing opportunities for survivors. Survivor services are not built into DHCD’s emergency assistance system. Conversely, DCF can help survivors begin the housing process with referrals, but DHCD is the agency that is focused primarily on housing outcomes. The Client Flow Map could potentially serve as a tool to help ITF members advocate for an improved governmental response to the intersection of homelessness, domestic violence, and sexual violence.

Name: Ferrari, Blaine

Practicum Site: Boston Medical Center

Location: Boston, MA United States

Title: Graduate Research Assistant, “Access to reproductive health for women with intellectual disabilities.”

Introduction: Women with intellectual disabilities (ID) represent an underserved population with notable disparities in terms of reproductive health care access and outcomes. Little is known about the reproductive health care needs and experiences of this population. The Society of Family Planning funded study, “Access to reproductive health for women with intellectual disabilities” seeks to better understand the reproductive health care needs and experience of this population in order to create effective educational materials.

Methods: Qualitative interviews were conducted with 12 women with ID all of whom worked in and around the Boston area. Interviews were then transcribed, coded, and analyzed. Results were analyzed collaboratively using the grounded theory method. We first collected data, marked key points with codes, and then grouped codes into similar concepts. From these concepts, categories were formed and used to inform our results.

Results/Outcomes: Important themes abstracted from the collected data included barriers at the systems-, provider-, and patient-levels. A few themes found include communication barriers between patients with ID and their providers as well as a lack of access to desired sexuality and reproductive health educational resources. While further research is needed to more fully quantify reproductive health care experiences and to describe the unmet reproductive needs of women with ID, significant barriers to care seem to drive reproductive health disparities. Collaborative education for patients and providers may help address communication barriers as well as comprehensive educational materials for patients and providers.

Name: Garver, Kyla

Practicum Site: Boston Medical Center

Location: Boston, MA United States

Title: Breastfeeding Center Intern

Introduction: As a Project Assistant at the Breastfeeding Center, I conducted research to support the CHAMPs project. CHAMPs is a breastfeeding initiative focused on improving maternal child health outcomes and rates of exclusive breastfeeding in Mississippi, New Orleans, and Southern Texas. MCH health indicators are very poor in this region of the country and are further compounded by suboptimal rates of breastfeeding. In addition, there are significant racial disparities in infant mortality and initiation/duration of breastfeeding.

Methods: I worked with the Principal Investigator and Research Assistant to collect demographic data and birth facility data. I helped organize the data in a master spreadsheet for the PI and consultants in the field. I identified existing perinatal quality improvement efforts in the geographic catchment area so that the PI could contact potential collaborators.

Results/Outcomes: The creation of a streamlined document capturing infant mortality, race and poverty data at the county level partnered with a list of all birth facilities in the tri-state region.

MATERNAL & CHILD HEALTH

Name: Jean, Sasha

Practicum Site: Boston Medical Center Pediatrics Department

Location: Boston , MA United States

Title: Behavioral Health Screening in Children with Sickle Cell Disease

Introduction: Academic Achievement is associated with improved quality of life and improved health status. Children with sickle cell disease face numerous barriers to reaching academic success. The objective of this practicum was to determine the results of the Vanderbilt Behavioral health screen on the pediatric sickle cell patients at Boston Medical Center through the pediatric hematology department.

Methods: Project consisted of compiling screening data and documenting how many of the 84 BMC pediatric SCD patients screened positive for behavioral/psychiatric health issues and whether the child was connected to the appropriate ancillary service if screened positive. Screening categories included characteristic of inattention, hyper impulsive behavior, oppositional disorder, antisocial behavior anxiety/depression, academic learning difficulties, and disruptive classroom behavior.

Results/Outcomes: Preliminary findings showed 50% of the population screened negative for all of the categories, roughly 24% of screened positive for an academic learning disorder, roughly 10% screened positive for behavioral disorders and another 10% positive for disruptive classroom behavior. 5% of the population screened positive for ADHD. The study allowed insight on whether the population screened was dealing with any behavioral/psychiatric issues at the time of screening. Some patients who were screened positive were already being followed and assisted through other medical providers mostly by their primary medical doctor and some patients who screened positive had no reported actual issues in school or at home.

Name: Mamata, Hosana

Practicum Site: Boston Medical Center

Location: Boston, MA United States

Title: Research Assistant

Introduction: Premature rupture of membranes (PROM) refers to an event when a patient's membrane ruptures at least one hour before the onset of contractions. Approximately 8 to 10 percent of pregnant women at term experience PROM. When women experience PROM, management options include expectant management or active management. Currently, Boston Medical Center's new PROM guidelines encourage providers to engage women in a shared decision making process so that together, providers and women can make the best care decision. The PROM survey study seeks to evaluate this new PROM management policy at BMC from patients' perspective.

Methods: To evaluate the quality of the new policy, I worked with the principle investigator to: 1) enroll patients into an ongoing patient-satisfaction and experience survey study; 2) create a database for collecting survey results; 3) review and create a set of recommendations to the current IRB application for the survey study by compiling patient feedback; 4) conduct a literature review to potentially expand the survey to incorporate providers' perspectives regarding the new PROM management policy.

Results: The study team will continue to enroll patients until n=50. The survey results are collected in a REDcap database to evaluate the effectiveness of the new policy. My recommendations to the current IRB application will be incorporated to ensure that survey questions are clear and easily understood by all study participants. The literature review on shared decision making will be used to inform future direction of the study.

Name: Masdea, Jennifer

Practicum Site: Boston Medical Center Pediatrics Department

Location: Boston , MA United States

Title: Utilizing an EHR Prompt to Improve Sickle Cell Trait Counseling at Pediatric Routine Visits

Introduction: Sickle cell disease (SCD) is the most commonly inherited blood disorder in the United States. While being a sickle cell gene carrier was once considered a benign condition, recent studies have linked sickle cell trait (SCT) with an increased risk of rare but serious health problems. Many individuals with SCT do not know their status despite universal newborn screening efforts. Primary care physicians (PCP) frequently miss opportunities to counsel their patients because of inaccessible test results, documentation errors, and feelings of discomfort. This quality improvement project aimed to increase the proportion of pediatric patients counseled about SCT by PCPs during routine visits at Boston Medical Center (BMC).

Methods: An electronic health record (EHR) prompt was created to remind PCPs to counsel children with SCT on their problem list during routine visits. The prompt also enabled PCPs to document SCT counseling in a systematic way and print patient education materials. Between May and December 2014, practicum activities included: 1) reviewing patient problem lists to alert PCPs of weekly SCT counseling needs via email; 2) inputting SCT counseling rates in the project database; 3) preparing monthly updates for BMC administrators; 4) addressing physician inquiries; 5) completing the Institute for Health Care Improvement's quality improvement course; and 6) expanding the project to pediatric residents.

Results/Outcomes: Plan-do-study-act cycles were used to determine the impact of the EHR prompt and weekly email alerts on SCT counseling rates. Significant improvement occurred between April and November 2014. EHR prompt utilization also increased during the same time period.

MATERNAL & CHILD HEALTH

Name: McCue, Kelly

Practicum Site: Boston Medical Center, Department of Family Medicine

Location: Boston, MA United States

Title: Research Assistant

Introduction: The Integrative Medicine Program at BMC brings integrative medicine techniques to underserved populations, with a mission of providing integrative care to reduce health disparities here in Boston. I assisted the Principal Investigator on two studies: 1) Our Whole Lives (OWL) Study: combining Integrative Medical Group Visits (IMGV) with a website and embodied conversational agent (ECA) to reduce pain and depressive symptoms in patients and 2) Go to Gabby for Health and Wellness Study: comparing accessibility and comprehensibility of health (stress, nutrition, and exercise) information delivered by an ECA versus health information packets. Both studies utilize an ECA, an application that merges health care with technology in the form of a virtual health guide. The studies will assess whether the ECA can improve health knowledge and empower patients to change health behaviors on their own.

Methods: To prepare the studies for implementation, I 1) created health scripts with appropriate health literacy level (for the ECA), 2) assisted with website production, 3) facilitated multiple patient advisory groups to obtain feedback on the website and ECA, 4) edited the IMGV curriculum for use with the website and ECA, and 5) edited questionnaires to assess any differences before and after the studies and between control and intervention groups.

Results/Outcomes: The IMGV website ties IM to technology, in hopes that online access to health information and social support (website blog) will improve and maintain health among underserved patients with chronic pain and depression. These studies aim to improve health equity and reduce patient reliance on emergency services.

Name: Monestime, Gianina

Practicum Site: Mattapan Community Health Center

Location: Mattapan, MA United States

Title: Graduate Student Intern

Introduction: The Mattapan Community Health Center (MCHC) improves the quality of life for residents of Mattapan and Greater Boston through comprehensive, accessible, and culturally competent care. Each year MCHC hosts the Mattapan Healthcare Revival, a health fair for children, teenagers, adults, and families. In addition to promoting healthy living, the Revival serves as an opportunity to provide various healthcare services and screenings to community members. My role at this year's 18th Annual Mattapan Healthcare Revival was to co-facilitate the Teen Talk: What's On Your Mind? discussion with HIV Counselor, Vanessa Thiesfeld.

Methods: In this practicum, my tasks included: 1) researching public health topics relevant to teenagers in the community; 2) developing and teaching a curriculum for Teen Talk; and 3) creating an informational resource guide to be distributed on the day of the event. As co-facilitator of this discussion, the goal was to dispel myths and incorrect information that teenagers in the community may have had, regarding any and all public health topics.

Results/Outcomes: Despite low attendance at the teen tent, we distributed approximately 50 resource guides and 25 condom goody bags to teenagers in the community. In the future, the planning committee will commit itself to investigating new strategies that may be used to attract and retain teenagers at this event. It is critical that community health programs – similar to the Revival – continue to target and educate at-risk teenagers in urban communities. These programs will help them make their own well-informed health decisions as they enter adulthood.

Name: Moran, Kaitlyn

Practicum Site: Massachusetts General Hospital - MGPO Performance, Analysis, and Improvement

Location: Boston, MA United States

Title: Research Assistant for the MGPO Physician Survey

Introduction: Physicians are increasingly asked to perform a variety of administrative tasks in an effort to improve the access, quality, and efficiency of their patients' medical care. Paradoxically, these requirements, many of which involve the meaningful use of Electronic Health Records, often lead to more time spent on paperwork and computers and less time available for direct face-to-face patient care. The Mass. General Physicians Organization (MGPO) distributes a survey to physicians every two years to assess and evaluate these important issues in their clinical departments.

Methods: An online survey was distributed to nearly 2000 physicians in the MGPO to assess factors like administrative burden, satisfaction, burnout, and engagement. We also conducted a comprehensive literature review around these topics in order to create benchmarks for which our results could be compared to. Results of the survey were presented to various stakeholders and interested parties.

Results: The majority of physicians feel that administrative duties interfere with their ability to deliver high quality care. The findings demonstrate that measures that have been enacted with the intention of improving patient care may inadvertently lead to more frustrated physicians. Results and feedback from the survey will be used to develop future initiatives to address administrative burden in physicians.

MATERNAL & CHILD HEALTH

Name: Morrison, Rachel

Practicum Site: Planned Parenthood League of Massachusetts

Location: Boston, MA United States

Title: LGBTQ in the Workplace

Introduction: As the Internal Training Resources Intern in Planned Parenthood League of Massachusetts' Education Department, I addressed the issue of workplace discrimination against LGBTQ employees by creating a cultural competency educational program aimed at creating a more affirming and supportive environment for LGBTQ employees. Negative physical and mental health outcomes in LGBTQ employees have been associated with an unsupportive work environment. This is especially true for trans* identified employees. Supportive work environments have been associated with improved physical and mental health outcomes among LGBTQ employees and are also related to improved job performance and satisfaction.

Methods: During my time at PPLM, I created "LGBTQ in the Workplace" – an educational program geared toward creating a safe, affirming, and supportive workspace for LGBTQ employees. In addition to preparing and organizing resources for Internal Training programs, I researched the impact of supportive and unsupportive workplaces on LGBTQ health as well as best practices for developing LGBTQ cultural competency programming, created and compiled a series of activities aimed at rooted in behavior change theories, and developed a list of resources as well as suggestions for maintenance.

Results/Outcomes: PPLM will be able to utilize the program as a free-standing educational program in the context of cultural competency as well as pull individual components to use in other programs. The program is designed in a way that promotes sustainable behavior change, and not only gives employees knowledge, but also gives them opportunities to practice and become confident in new behaviors to promote an LGBTQ-supportive environment.

Name: Oladunjoye, Adeolu

Practicum Site: Boston Medical Center

Location: Boston, MA United States

Title: Research Assistant

Introduction: I completed my practicum in the Division of Pediatric Infectious Diseases, Boston Medical Center whose research is recently focused on Streptococcus pneumonia (SP) infection providing ways by which this illness is better understood, prevented and treated. It was found that while pneumococcal vaccine use has reduced the prevalence of previously virulent serotypes, the rate of pneumococcal carriage is yet to decrease and an ongoing surveillance study of SP nasopharyngeal colonization among children < 5 years was initiated. Activation of the complement binding pathway is one immune response used by the host to control bacterial infection. I hypothesized that the more invasive an isolate, the less complement it will bind. The goal of my practicum was to identify if 23B serotype was a candidate for inclusion in future vaccine.

Methods: I selected randomly 5 SP isolates each of children with (invasive SP) and without (carriage SP) pneumococcal disease and compared the isolates' immune activation capacity. I evaluated their human complement binding deposition to the surface of the bacteria using a flow cytometry assay. I recorded complement binding as a change in relative fluorescence of bound and unbound complement for each 23B serotype and compared the mean number of bacteria that bound to complement in both groups using independent T-test.

Results/Outcome: The carriage SP had a higher mean (5.453 ± 0.360) than the Invasive SP (4.497 ± 0.478). This was statistically significant ($p=0.007$), and may be an indication to include 23B serotype in future pneumococcal vaccine. However, it would be interesting to see the trend with a larger sample.

Name: Rahman, Shati

Practicum Site: Boston Public Health Commission

Location: Boston, MA United States

Title: Health Promotion Internship at the Boston Public Health Commission

Introduction: In 2009 the National Survey on Drug Use and Health estimated that around 21.8 million Americans from 12 years of age and above are illicit drug users. Illicit drugs include drugs such as heroin, cocaine, marijuana, hallucinogens, inhalants, prescription drugs used for nonmedical reasons and abuse of common over-the-counter medications. Substance abuse has no boundaries affecting men and women, teenagers alike, often tearing lives and families apart and causing a multitude of health problems such as HIV, Hepatitis C and B and mental disorders due to unsafe practices involved when taking illicit substances. In 2012, in Boston alone there were 16,272 admissions to substance abuse centers. Even for individuals who seek treatment at rehabilitation centers, relapses and drop out rates from programs are high.

Methods: The Health Promotion Internship at the Boston Public Health Commission, under the Bureau of Addictions, Prevention Treatment and Recovery Support Services focused on developing educational materials based around the 'harm reduction theory' to reduce the risks individuals with substance abuse disorders, especially adolescents, face when taking illicit drugs. The educational materials developed were brochures and info sheets on safer drug taking practices and techniques. An evaluation plan to peer review the educational materials was also developed to evaluate the utility and benefits healthcare professionals working in the field of substance abuse may derive from these new materials.

Results/Outcomes: It is hoped the final developed materials will be a valuable educational resource for use and distribution in substance abuse centers in Boston in the future.

MATERNAL & CHILD HEALTH

Name: Robinson, Ayana

Practicum Site: Physicians Medical Center

Location: McMinnville, OR United States

Title: SNACK: Reducing Childhood Obesity by Focusing on Lifestyle Change / SNACK Program Coordinator

Introduction: The mission of the Western Oregon Center for Pediatric Therapeutic Lifestyle Change (WOCPTLC) is to facilitate behavior change towards healthy eating and active living for children and their families. The primary activity of the WOCPTLC is the Student Nutrition and Activity Clinic for Kids (SNACK). SNACK provides services to overweight or obese pediatric patients and their families, including nutrition education, free activity sessions and community events. SNACK serves the entire pediatric population of Yamhill County (ages 2-18), where 44% of children qualify for free or reduced lunch and the two largest racial/ethnic populations are White (79.1%) and Hispanic (14.7%). As the SNACK Program Coordinator, I am responsible for the development and management of all program operations. For this practicum, I completed an assessment of SNACK and a Strategic Plan for 2015-2017.

Methods: In assessment of the program, I 1) analyzed SNACK's organizational documents and previous activities, 2) conducted a series of key informant interviews with providers, patients, family members and community leaders, 3) compiled relevant non-identifiable patient data from electronic medical records, and 4) completed a quantitative analysis of the program. Finally, I completed a review of literature evaluating similar interventions.

Results/Outcomes: Using the information gathered and public health techniques I learned in my coursework, I created a comprehensive list of findings and recommendations that I presented to the WOCPTLC Board of Directors. Based on these recommendations, I negotiated a two year Strategic Plan which is expected to be adopted January of 2015.

Name: Rodriguez, Bryan

Practicum Site: Boston Medical Center, Department of Family Medicine

Location: Boston, MA United States

Title: Research Assistant in Department of Family Medicine (Boston Medical Center)

Introduction: The Program for Integrative Medicine and Health Care Disparities in the Department of Family Medicine at Boston Medical Center (BMC), researches disparities in Complementary and Alternative Medicine (CAM) use. As a Research Assistant, I worked on the Music and Massage Therapy Pilot Study (M&M) and the Back to Health Study (B2H). M&M is a pilot study examining the feasibility of conducting a randomized control trial (RCT) comparing music and massage therapies to usual care with inpatients in a safety net hospital. B2H is a R01 RCT comparing yoga with physical therapy for patients with chronic lower back pain. The purpose of this practicum was to implement effective strategies to recruit participants, review relevant medical record data, and collect patient-reported qualitative data in the M&M study. I also provided administrative support as B2H concluded its final cohort.

Methods: As part of a multidisciplinary research team, I recruit, collect data, and conduct follow-up interviews. Responsibilities include coordinating with BMC inpatient nurses to determine the impact of the M&M intervention on potential participants; pulling primary and secondary data from medical records on pain and anxiety outcomes; and conducting telephone follow-up interviews. Administrative support for B2H included conducting in-person structured interviews, and ensuring data quality.

Results/Outcomes: To date, 73 BMC patients have successfully enrolled and been randomized to massage therapy, music therapy, or usual care. Preliminary results indicate that both music and massage may have a significant impact on patients' self-reported care satisfaction and stress relief. Lessons learned include research and communications skills.

Name: Schmitz, Kelli

Practicum Site: Eritrean Women's Community Center

Location: Tel Aviv, Israel

Title: Education and Health Care Coordinator

Introduction: As part of the Women's Health Initiative at the Eritrean Women's Community Center, a south Tel Aviv based grassroots organization dedicated to serving Eritrean asylum seekers, I assisted in coordinating and expanding the existing Women's Health Initiative and the Healthy Families Programs, along with providing consult with individual casework. The goal of both programs is to empower Eritrean women living in Israel by providing information, social support, and access to healthcare while living in a care restricted setting.

Methods: I worked with the director of the organization: 1.) to perform a needs assessment to identify critical areas 2.) to develop and deliver maternal and child health curriculum focusing on child development (birth to 3 yrs old), child nutrition, family planning, and pregnancy 3.) a re-structure the Women's Health Initiative and Healthy Families Programs by increase capacity, improve management plan, and expanding community partnerships 4.) co-manage the relocation, renovation, and design of the new Center.

Results/Outcomes: In total, 20 women were trained and graduated from the maternal child health course, establishing the presence of qualified workers throughout the asylum seeker community to facilitate the dissemination of health information. Additionally, the Center re-located and expanded, hoping to decrease isolation within the asylum seeker community while also providing services like more vocational training and focused health trainings on growing areas of acute need like sexual violence and children with special needs.

MATERNAL & CHILD HEALTH

Name: Ulrich, Katherine

Practicum Site: Dorchester House Multi-Service Center

Location: Boston, MA United States

Title: Practicum Student/Clinical Volunteer

Introduction: Dorchester House Multi-Service Center is a federally qualified Community Health Center that provides comprehensive health services to Boston's Dorchester neighborhood. I worked with Dorchester House to improve the processes of universal depression screening and behavioral health Integration in the Adult Medicine Department.

Methods: I worked with the Chief Medical Officer, Clinical Programs Manager and a DrPH Practicum student to improve the processes and understanding of process barriers and failures directly related to Behavioral Health Integration. This involved 1) clinical observations; 2) interviews with PCPs, BH clinicians, and medical assistants; 3) process mapping and evaluation. We developed recommendations of actions to improve the efficiency and effectiveness of behavioral health integration based on our work.

Results: Throughout the course of these activities, several themes emerged regarding staff and clinicians understanding of behavioral health integration; 1) medical assistants felt uncomfortable screening patients for depression 2) clinicians felt that coverage in the Integration office was not fully consistent 3) behavioral health providers were not clear what was expected of sessions with clients in the integration office. In order to improve understanding and compliance with Universal Depression Screening a training is being devised for Medical Assistants. A report with detailed situational analysis and recommendations will be presented to the Chief Medical Officer and the Clinical Programs Manager.

SOCIAL & BEHAVIORAL SCIENCES

Name: Anderson, Erin
Practicum Site: Kaiser Permanente
Location: Oakland, CA United States
Title: Health Communications for Medication Adherence App

Introduction: The Regional Health Education Department is an in-house consulting agency that develops all patient-facing communications for The Permanente Medical Group (TPMG), healthcare providers to over 3.4 million Kaiser Permanente members across Northern California. As part of the health communications practicum, I developed a new marketing strategy for an app recently created by TPMG. The app, My KP Meds, is designed to help patients adhere to their medication plans, and the campaign is especially targeted at patients with new, complex medicine regimes or those who had recently undergone surgery.

Methods: I independently designed a new theoretical framework for marketing collateral, drawing heavily from social and behavioral science theory and marketing principles. I wrote a creative brief detailing the concepts for the collateral, pitched the new piece to the Marketing Director, and worked with the Design Team to produce the piece.

Results/Outcomes: The new collateral was produced in August 2014. It has since replaced the original collateral throughout all clinics and pharmacies that advertise the medication adherence app, and the piece will be distributed to patients coming out of surgery. The new framework developed using health communication principles will be used to ensure greater engagement with health messages on two additional campaigns, medical video visits and a prevention-focused app.

Name: Dattani, Nikhita
Practicum Site: Massachusetts Council on Compulsive Gambling
Location: Boston, MA United States
Title: Research and Data Intern

Introduction: The Massachusetts Council on Compulsive Gambling, in conjunction with the Wisconsin Council on Problem Gambling, aims to survey executive casino management and staff regarding the status of current responsible gambling initiatives and training programs. The purpose of this practicum was to assess the prevalence and implementation status of a variety of compulsive gambling prevention and recovery options

Methods: Practicum activities include: 1) collaboratively design study questionnaire for casino staff and management; 2) conduct phone interviews to gather information on whether casinos in Wisconsin have responsible gaming protocols; 3) analyze results and formulate final report with recommendations to Wisconsin Council on Compulsive Gambling; and 4) recommend adoption of training modules to casinos.

Results/Outcomes: Surveys will be conducted in the last few weeks of November. Data analyses and results will be completed and distributed in December. This information will inform future adoption of training initiatives that promote responsible gambling.

Name: Goode, Michelle
Practicum Site: Vera House
Location: Syracuse, NY United States
Title: Internship at Vera House

Introduction: Vera House, located in Syracuse, NY, is an emergency shelter for victims of domestic violence and sexual assault. It serves as an important resource for individuals by providing emotional support and assistance procuring a safe place.

Methods/Activities: Practicum activities included: 1) provide direct service, support and comfort to residents; 2) review best practices for trauma informed care in order to make the shelter trauma free; 3) develop a 15 week domestic violence curriculum for residents and implementation trainings for staff; 4) observe first-hand the adverse impacts of the trauma faced by survivors.

Outcomes/Results: Vera House staff are now equipped to implement weekly classes for shelter residents. The research on trauma informed care has been included in the shelter handbook to ensure optimal healing for survivors. Personally, I am more confident working with diverse populations and populations that suffer from post-traumatic stress.

SOCIAL & BEHAVIORAL SCIENCES

Name: Jew, Lina

Practicum Site: Brookline Department of Public Health

Location: Brookline, MA United States

Title: Program Associate

Introduction: The Brookline Department of Public Health's mission is to monitor and improve the health status and quality of persons who live and/or work in Brookline, MA by providing a range of environmental, community, and clinical health services. The Division of Community Health within the department is responsible for overseeing community health initiatives focused on health improvement and disease prevention, such as healthy eating and physical activity and adult immunization. As the Community Health Program Associate, I was responsible for organizing and promoting three major events and programs this fall: Car-free School Day, Food Day, and four community flu clinics.

Methods: Organizing the community events included collaborating with other Divisions within the health department, liaising with community partners such as the Brookline public schools, and recruiting and coordinating volunteers. Promoting the events included activities such as developing educational and promotional posters, drafting press releases for local media and school newsletters, and updating social media.

Results/Outcomes: The community events were all successful. All K-8 Brookline Schools participated in Car-Free School Day and one school had an organized bike parade. For Food Day, a "Shopper's Guide to Pesticides in Produce" was promoted to educate the community about which foods are better to purchase and consume in organic form. The community flu clinics were busy and well attended. The Division of Community Health is in the process of organizing Brookline on the Move, and events for Climate Week in the new year.

Name: Kensky, Sarah

Practicum Site: Walter Reed Army Medical Center

Location: Bethesda, MD United States

Title: Intern for Social Experiences of Traumatically Injured Service Members in the Community and in Clinical Care Study

Introduction: Walter Reed National Military Medical Center (WRNMMC) is the one of the nation's largest and well known military medical centers dedicated to serving our nation's active duty service members, their families, returning war heroes, our nation's leaders, and veterans. The Military Advanced Training Center (MATC) located at WRNMMC is the main amputee clinic where patients receive physical and occupation therapy, recreation therapy, and computer-assisted rehab in addition to being the center for performance and clinical research. Since 2011, about 1,648 service members have lost at least one limb as a result of the wars in Iraq and Afghanistan. WRNMMC is one of the key partners for the Center for Rehabilitation Sciences Research (CRSR) dedicated to four performance areas one of which being identifying barriers to successful integration post injury.

Methods: This practicum involved comprehensive literature reviews around traumatic limb loss. Furthermore, after obtaining IRB approval, HIPPA certification, and appropriate training, I worked with the principle investigator and research assistant to: 1) Conduct qualitative research to understand context of patient care; 2) Recruit patients for study participation; 4) Draft interview questions and conduct participant interviews; 5) Transcribe pre-recorded interviews.

Results/Projected Outcomes: Anticipated outcomes include evidence on what factors enhance resiliency, encourage healthy adaptation, and reintegration into society. Furthermore, the study hopes to help define what a positive clinical outcome is after traumatic limb loss and how patient experiences of rehabilitation and autonomy have relationship in achieving these outcomes.

Name: Lawrence, Molly

Practicum Site: Cambridge Public Health Department

Location: Cambridge, MA United States

Title: Evaluation of the Cambridge Food and Fitness Policy Council

Introduction: The Cambridge Food and Fitness Policy Council was established by the City Manager in 2011 under the guidance of the Cambridge Public Health Department, to aid the city in making healthy foods and fitness opportunities available to all residents. The Council is completing an evaluation of what has been accomplished during the past three years and will make recommendations to the Cambridge City Manager. The purpose of this practicum was to support the process evaluation effort and quality improvement process.

Methods: Practicum activities included: 1) conduct a literature review of existing best evaluation practices specific to councils of this type; 2) create and implement a data collection framework that measured attainment of the eight original recommendations previously drafted by the Council; 3) review participation records; 4) conduct seven key informant interviews; 5) design and implement a member survey; 6) conduct a focus group; and 7) analyze data and propose recommendations to guide next steps

Results/Outcomes: Process measurements included in the evaluation included member engagement and participation. Suggestions for re-structuring the Council, improving outreach and communications strategies, and enhancing the legitimacy and transparency of the council will be highlighted in the written report.

SOCIAL & BEHAVIORAL SCIENCES

Name: Lessios, Anna

Practicum Site: Arlington Health and Human Services Department

Location: Arlington, MA United States

Title: Health Education at the Arlington Department of Health and Human Services

Introduction: The mission of the Arlington Board of Health is to protect and preserve the health of the public. A large component of that mission involves educating the public about health risks. The purpose of this practicum was to support the Arlington Board of Health in securing funding, producing and maintaining health education materials. One priority were activities related to the Arlington Housing Authority's decision to ban smoking within their properties in 2015.

Methods: Project activities included: Producing a number of health education materials such as health related articles, press releases and tweets. It also included preparing a grant application to provide smoking cessation services in the Arlington Housing Authority; producing informational materials on smoking cessation resources for Housing Authority residents and participating in meetings to introduce the policy change to residents. Prior to improving existing resources, consideration of related peer-reviewed literature was conducted.

Results/Outcomes: The Arlington Board of Health has a variety of resources for the purpose of health education and has made them available to the public. This information may increase positive health related behavior change, by informing Arlington residents of potential risks and steps that can be taken to protect themselves. In addition, the Housing Authority policy change assures that residents now have materials available regarding the smoking cessation options being offered by the Board of Health. The submitted grant application, now under review, proposes to fund these options.

Name: Lodick, Anne

Practicum Site: Aptel Research

Location: Cambridge, MA United States

Title: Project Lead- Patient Voices: Treatment Decision Syndicated Report

Introduction: Aptel Research is a market research company that focuses on helping pharmaceutical and healthcare companies understand and integrate patient and physician experiences/perspectives into their products and services. Aptel Research sought to create a new syndicated report series, the Patient Voices Social Media Reports to provide an in-depth understanding of patient experiences with their condition and treatment through analysis of online patient forums. The purpose of this practicum was to develop the product concept and methodology, and assist in promotion/sales of the report.

Methods: The methodology for conducting qualitative content analysis of patient forums included literature reviews and identification of other companies that use social media analysis. Presentations were developed on the methodology and potential uses of the analysis for healthcare companies. A case study was prepared to analyze melanoma patient forums that illuminated patient experiences with a new class of treatments (PD-1 inhibitors).

Results: CEO Michele Derai, presented the methodology for social media analysis at the Eye for Pharma Patient Summit in London. The Patient Voices Social Media reports were incorporated into Aptel Research's service offerings. The melanoma case study was used in webinars and client meetings to demonstrate the use and value of patient social media analysis. Going forward Aptel Research will be able to use the methodology developed for syndicated reports as well as in custom patient research projects.

Name: Rathore, Aishwarya

Practicum Site: Dana Farber Cancer Institute

Location: Boston, MA United States

Title: Community Based Research Intern

Introduction: The Center for Community-Based Research (CCBR) within the Center for Population Sciences at the Dana-Farber Cancer Institute examines ways that social and physical environments increase cancer risks and interventions that mitigate such risk. A current innovative tobacco control pilot study explores the facilitators and barriers associated with dissemination and schools' willingness to adopt a comprehensive tobacco control intervention to support tobacco use cessation among school teachers in the Maharashtra and Bihar Provinces in India. This research builds on an intervention for school teachers, called the Tobacco Free Teachers/Tobacco Free Society program, which was tested and shown to be effective in helping teachers quit tobacco use and schools become tobacco-free in the Indian state of Bihar.

Methods: Practicum responsibilities included: 1) conducting qualitative analysis of focus groups conducted with school principals; 2) summarizing findings from key informant interviews with leaders within the Departments of Education; 3) conducting literature reviews related to support submission of a dissemination and implementation grant in India; and 4) assistance with grant preparation and submission.

Results/Outcomes: Analysis of the qualitative data collected from teachers and principals reveal factors associated with the successful uptake of the program and offer helpful insight for future adoption. Likewise, focus group and key informant findings with school teachers and principals who were not a part of the program offer considerations for further dissemination. Together this data presented a comprehensive and improved model for the expansion of the program.

SOCIAL & BEHAVIORAL SCIENCES

Name: Storm, Marissa

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

Location: Boston, MA United States

Title: Marketing for Behavioral Study of Cigarette and Tobacco Substitution (BSCiTS)

Introduction: Since the product's introduction to the U.S. market in 2004, electronic cigarette (e-cigarette) use has been on the rise and now comprises a billion dollar industry. Despite their growing popularity, little is known about the impact of e-cigarettes on tobacco smoking behavior. There is, however, substantial anecdotal evidence suggesting that e-cigarettes are effective for smoking reduction or cessation among some smokers. The Behavioral Study of Cigarette and Tobacco Substitution (BSCiTS) seeks to understand how e-cigarettes affect tobacco smoking behavior among current tobacco smokers seeking to quit or reduce their consumption. E-cigarettes will be compared to the nicotine patch in a randomized behavioral study. This will be the first US randomized behavioral study on e-cigarettes.

Methods: In preparation for fundraising, we have developed the following materials: 1) a BSCiTS website highlighting key messaging; 2) a Facebook page and Twitter account to gather influential followers and increase awareness; 3) a formal proposal and a presentation for important donors. Materials were originally developed for a broad crowd-funding approach, but have recently changed in favor of a more traditional, targeted fundraising campaign. A formal fundraising presentation will be held in early December with important potential donors.

Results/Outcomes: Upon study completion in 2018, public health officials, the FDA, e-cigarette companies, smokers and non-smokers will better understand the impact of e-cigarettes on tobacco smoking behavior.

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