

Name: Bonnie Chou
Practicum Site: Harvard School of Public Health—Nutrition Department
Location: Boston, MA
Title: Research Assistant

Introduction: With nearly one third of U.S. children considered overweight or obese, food served in schools become more important today. Chefs in School Initiative, developed by Project Bread, a nonprofit anti-hunger organization, Boston Public Schools, the Boston Public Health Commission, and Harvard School of Public Health, is a two-year pilot program which introduces a professional chef into several Boston public schools and uses behavioral psychology to encourage students to select healthier foods. Extensive study data, including dietary intake, is collected for statistical analyses while “chef in school” is implemented in participating Boston Public Schools.

Methods: Samples of the foods being served were weighted before lunch period, foods selected by the students were recorded as they paid for their meals, and the trays were collected for weighting and calculating how much were consumed after the lunch period. As part of this practicum, approximately four thousand students were recorded, and twenty-eight variables were collected per student. Data cleaning was undertaken to provide datasets for statistical analysis and further research.

Results/Outcomes: With data collection for the Chefs in School study now complete, data cleaning is ongoing at this time. The pursuit of initial research interest will lead to statistical analysis and provide valuable insight in Public Health, with the ultimate goal being to help students eat healthier.

Name: Laura Hou
Practicum Site: Biogen Idec
Location: Cambridge, MA
Title: Research Associate

Introduction: In previous studies, distant single nucleotide polymorphisms (SNPs) on the same chromosome and SNPs on different chromosomes have been observed to have high correlations. The purpose of this study is to investigate this linkage disequilibrium and see whether the genes corresponding to these SNPs are differentially represented in different patient populations.

- What are the significantly linked genes in the MS population not present in the healthy control or RA populations?
- Do these genes belong to a specific system or pathway, and can they inform us about disease subtypes?

Methods: We studied three patient populations: a multiple sclerosis (MS) population, a rheumatoid arthritis (RA) population, and a healthy control population. Two primary questions were investigated using data management techniques in Unix, SAS, and R to extract p-values as well as histograms to explore the data.

Results/Outcomes: We identified more than 50,000 significantly correlated distant SNP pairs in the MS population, the healthy control population, and the RA population each. It is still unclear which pairs appear differentially between the populations. Further steps are being taken to assess the validity of the correlation calculations using Minor Allele Frequency (MAF) values as well as comparing them to R² values. We are also matching the significantly correlated SNP pairs to the online linked gene database BioGrid to see what pathway the pairs may belong to.

Name: Ned McCague
Practicum Site: Boston Medical Center—Department of General Pediatrics
Location: Boston, MA
Title: Research Assistant

Introduction: In an effort to assess the impact that early life adversities have on chronic health conditions, data from the Black Women's Health Study were analyzed to gauge the association between abuse and sleep disorders.

Methods: Using SAS, I analyzed data from the Black Women's Health Study to determine whether or not abuse was associated with sleep apnea, restless sleep, and other sleep disorders.

Results/Outcomes: The early, crude results indicate that abuse is associated with increased odds of various sleep conditions. Furthermore, increasing severity of abuse is associated with further increased odds of sleep disorders. Further analysis will be done to determine if these results hold true after controlling for key variables.

BIostatistics

Name: Rebecca Patterson

Practicum Site: Massachusetts Department of Public Health—Division of Sexually Transmitted Disease Prevention

Location: Jamaica Plain, MA

Title: Knowledge and Practice of Clinicians Attending Educational Lectures

Introduction: The Ratelle Prevention Training Center (PTC) targets providers in the New England states who diagnose and treat STDs. In 2010, an electronic Audience Response System (ARS) was integrated into educational lectures.

Methods: Turning Technologies TurningPoint ARS was used to examine knowledge and practice of clinicians attending educational lectures, from 2010-2012. The responses from these lectures were analyzed to generate hypotheses to inform future training efforts.

Results/Outcomes: Hypotheses for Infectious Disease Specialists: (a) Infectious disease clinicians are seeing an increase in the number of infectious syphilis cases. (b) Percentage of infectious disease clinicians using a newer blood test to screen for syphilis is increasing. (c) Percentage of infectious disease clinicians using a more sensitive screening test for gonorrhea/chlamydia is increasing. Hypotheses for general audiences: (a) Majority of clinicians know how to correctly treat a young male symptomatic for gonorrhea. (b) Majority of clinicians know the correct cause of urethritis. ARS data is a valuable tool in assessing real time audience training needs. The hypotheses described above can identify trends, practice limitations, knowledge gaps, and inform training efforts. The primary purpose of using ARS technology is to engage the audience; therefore interpretation of the results was limited due to differences in questions and small sample sizes. Demographic variables (e.g. practice settings, years in practice) can be collected for future in-depth analyses.

Name: Michael Tobias

Practicum Site: Boston University Center for Global Health & Development—ZamCAT Study

Location: Choma, Zambia

Title: ZamCat Study Intern

Introduction: The Center for Global Health and Development runs a number of studies in various parts of the world. The ZamCAT study in the Southern Province of Zambia compares application of chlorhexidine to dry cord care, trying to determine if use of the antiseptic during the first 10 days of life will improve the survival rate of infants as compared to dry cord care.

Methods: I joined the data group at the study headquarters in Choma, Zambia. My goal was to help implement and streamline data collection and initial analysis. In particular, I worked with the Teleforms data entry program, to standardize data collection and to make data collection more efficient. In addition, I developed tools in Microsoft Access to help detect and reduce data errors, and to keep track of the overall progress of data collection. I also did some work in Microsoft Excel to help with analysis of data collection efforts.

Results/Outcomes: Through my work and the work of others, we standardized and streamlined data entry; we also developed tools for detecting data collection and entry errors. In addition, we are able to routinely amalgamate data entered on several computers in a limited network environment. Intelligent users can run a variety of reports to check ongoing data collection without being required to have expertise in design of Access queries or programming. They are also able to run a data export to send an updated set of collected data for further analysis.

ENVIRONMENTAL HEALTH

Name: Elyse Judge
Practicum Site: Chelsea Collaborative
Location: Chelsea, MA
Title: Chelsea STAR Project Intern

Introduction: For my practicum I interned with Dr. Madeleine Scammell at the Chelsea S.T.A.R Program. This project is part of a partnership between the Chelsea Collaborative and the Boston University School of Public Health. The goal of this research project is to see if environmental and social stressors effect human health. My goals were to recruit participants, and conduct at least fifteen interviews. In addition I am assisting with the Chelsea Community Gardens Project. The project seeks to sample and test the soil for contamination at the existing community garden and at a plot of land adjacent to it. My goals were to assist with the organization, planning, and sampling of the soil for contamination.

Methods: Participants are recruited by going door-to-door in the selected areas of Chelsea. Up to 500 interviews will be completed in five different census tracts of Chelsea. Interviews last about an hour long and consist of 180 questions about environmental and social stressors, and individual health. The interviews are conducted either in the participant's home or at the Chelsea Collaborative.

Results/Outcomes: Recruitment and interviewing are still ongoing until January 2013 and a data analysis has not been completed yet. As of August 13, 2012 173 interviews have been completed and I have conducted 15 of them. I also recruited participants for the study. The Community Garden Project is ongoing in the planning & organization phase with an estimated soil sampling date of early September 2012.

Name: Baram Kim
Practicum Site: Charlestown Sprouts Community Garden
Location: Charlestown, MA
Title: Researcher

Introduction: The Charlestown Sprouts Community Garden is one of Boston's largest community gardens, with 105 plots--all producing food--located in the historic neighborhood of Charlestown. It serves mainly minority and recent immigrant member households who rely on the land as a source of fresh produce. To ensure the safety of food production at the garden, the coordinators sought assistance to: 1) conduct a historical survey identifying past land uses 2) characterize potential contaminant exposures to gardeners 3) furnish health-protective recommendations to minimize gardener hazard exposures.

Methods: Research for the historical survey included consulting historical maps, archives, databases, local community members, historians, and multiple city agencies. A review of the body of knowledge regarding soil screening guidelines, sampling and analysis, and physical remediation methods informed the recommendations.

Results/Outcomes: The garden was established at a site with a varied history of land uses. Community-member accounts, corroborated by photointerpretation data, suggest that the site was possibly an illegal dumping grounds in the 1970's-80's. Based on the findings of the survey, it is likely that a number of potential contaminants exist at the garden, including lead and arsenic. One salient source of soil contamination would be the CCA-treated timbers that comprise 2/3 of the garden plot constructions. Under the guidance of BUSPH faculty, the findings and consequent recommendations, differing in remediation technique and resource-intensiveness, were summarized in a document for the garden steering committee's development of imminent renovation plans.

Name: Joseph Lai
Practicum Site: Massachusetts Department of Public Health- Local Board of Health Summer Internships
Location: Sharon, MA
Title: Public Health Intern

Introduction: The Town of Sharon contains Lake Massapoag, a spring-fed lake with much recreational activity. Closures of lake beaches due to Escherichia coli counts exceeding Massachusetts regulatory levels (235 CFU/100mL, single measure) have been a concern over the past two-three years. This project sought to investigate the actual trends and reasons behind high bacteria measurements in the lake.

Methods: To observe general trends and associations between E. coli levels and potential risk factors, Microsoft Excel was used for statistical analysis on the lake testing results and field report forms (recording possible factors effecting microorganism growth such as water temperature and time since rain) from 2007 to present. These include:

- ANOVA and Bonferroni method for days since rain, bather load...
- Pearson correlation for air and water temperature...

Using the EPA Beach Sanitary Survey as guidance, a review of possible sources of contamination along the two public beaches that the Sharon Recreation Department operates was conducted. Septic system charts for surrounding houses and campgrounds were examined along with wildlife activity and conditions at a disturbed swamp that drains into the lake.

Results/Outcomes: The study has failed to find statistical significance for the association of any one potential factor to E. coli levels from 2007 to July 2012, and also for the different categories that went through ANOVA tests. However, noticeable trends were observed for some of the factors and year over year. The study of potential sources of contamination indicated that the local goose population may be the greatest source of bacteria and/or microorganism nutrients in the lake.

ENVIRONMENTAL HEALTH

Name: Debbie Lay

Practicum Site: Massachusetts Water Resources Authority

Location: Boston, MA

Title: Enhancing Water Quality and Containment Management

Introduction: The Massachusetts Water Resources Authority (MWRA) is responsible for providing drinking water to 61 Boston metropolitan communities. Communities may be fully, partially, or not at all supplied by MWRA water. Customer complaints in regards to the water's appearance, taste, and odor are monitored by MWRA to detect drinking water contamination. Due to the waning frequency of complaints, MWRA has curtailed compiling individual customer complaints it receives, instead relying on town self-reports. Investigation of a town's customer complaint reporting system can reveal much about its relationship with MWRA, which is dependent on efficient communication and compliance.

Methods: Interviews were conducted with water department managers from towns fully, partially, and not at all supplied by MWRA. Questions detailed the town's water source and relationship with MWRA, methods of handling complaints, types of complaints received, and strategies for evaluating and resolving them. Responses were qualitatively compared to characterize reporting efficiency and complaint handling by the town's MWRA relationship.

Results/Outcomes: The information will be used by MWRA in working with supplied towns and helping them handle local complaints. Most were satisfied with their complaint reporting process. Many have adopted computerized complaint tracking systems for follow-up. MWRA-reliant cities were satisfied with their relationship but chose to handle the majority of their complaints independently, leading to inconsistent documentation and agency reporting. MWRA should insist towns use the provided water quality complaint investigation forms and maintain customer complaint databases, because while rare, they are a crucial input for contamination detection.

Name: Jasmine Vakhshoorzadeh

Practicum Site: Global Bridges- Global Health Bridges

Location: Fresno, CA

Title: Water Brigades Intern

Introduction: Global Water Brigades is a non-profit organization focused on providing clean water in rural Honduran communities that lack access to clean water. Contaminated water due to lack of proper infrastructure increases the prevalence of water-borne illnesses, which is detrimental for rural communities with limited access to medical care. Through large-scale, gravity-flow water systems with springs or rivers as a water source, the goal is to improve the health of these communities by providing clean water in 52 communities by 2015, serving over 26,000 people. The purpose of this practicum was to learn how the organization designs, implements and monitors water systems in low-income communities.

Methods: Working with my field supervisor, a technician and other interns to 1. perform preliminary health assessments and bacteriological water quality testing on several communities' water supplies; 2. design a water system including budgeting and material lists; 3. establish a Water Council in each community 4. conduct follow-up assessments, and 5. investigate recontamination of drinking water.

Results/Outcomes: The preliminary assessment reports will be used to rank high-needs communities according to the severity of the bacteriological water testing results and the overall health of the population. The material and budget list will be used to plan and purchase materials for the upcoming project. The follow-up assessment reports were used to monitor and ensure quality of completed systems. All systems inspected were properly chlorinated and performing well. Recontamination of drinking water was not an issue, as people were cognizant about proper maintenance of drinking water storage containers.

Name: Yuki Ara

Practicum Site: Health Map at Children's Hospital

Location: Boston, MA

Title: HealthMap/Informatic Intern (Japanese Feed Developer)

Introduction: HealthMap brings together disparate data sources to achieve a unified and comprehensive view of the current global state of infectious diseases and their effect on human and animal health. This freely available Web site integrates outbreak data of varying reliability, ranging from news sources (such as Google News) to curated personal accounts (such as ProMED) to validated official alerts (such as World Health Organization). Through an automated text processing system, the data is aggregated by disease and displayed by location for user-friendly access to the original alert. HealthMap provides a jumping-off point for real-time information on emerging infectious diseases and has particular interest for public health officials and international travelers.

Methods: During my practicum at HealthMap, I worked primarily as an informatics intern and developed Japanese dictionary and created search strings for the system to collect news sources from Japan. Then I curated the collected news alerts to train the computer. Furthermore, I compared the alerts regarding foodborne outbreak between US and Japan during the summer.

Results/Outcomes: Regarding the collected alerts, we could see that the trend of foodborne illness in Japan weighs on E.coli and Campylobacter while Campylobacter outbreak was not common in the US. There were many immediate gastroenteritis outbreak alerts, but since some of the alerts did not have updates, there may be a bias in these results.

Name: Sarah Baird

Practicum Site: Massachusetts Department of Public Health—Local Board of Health Summer Internships

Location: Gloucester, MA

Title: MDPH Local Health Intern

Introduction: The epidemic of hepatitis C virus (HCV) infections related to injection drug use (IDU) among youth in Massachusetts and the opiate overdoses in Gloucester have called for closer examination of the infection rate among Gloucester residents. My role was to define the distribution of HCV infection in Gloucester and assist in the development of a city-wide hepatitis C strategy.

Methods: The HCV cases from 2001 through 2011 were extracted from MAVEN and mapped using Geographic Information System (GIS) software. The 11-year rate of newly reported HCV infections was compared to statewide rates and 4 other communities. A comprehensive plan for Gloucester was developed based on national strategies, including a rapid HCV testing protocol. To increase awareness of free HCV testing through the Health Department, a letter was sent to local physicians and the public health nurse's business cards were modified and distributed to community partners.

Results/Outcomes: Of the 5 communities, Gloucester had the highest 11-year rate of newly reported HCV infections (1497 per 100,000 population). Understanding the burden of hepatitis C is essential for crafting local strategies and allocating resources. Based on the minimal risk factor data for cases it was determined that a consultant will be hired to follow-up on reported HCV cases. This consultant will also assist in rapid HCV testing efforts targeting youth with the hope of reaching unidentified cases and those at risk earlier in life. The infection rate will be monitored to assess the effectiveness of community intervention.

Name: Kathryn Barker

Practicum Site: Massachusetts Department of Public Health—Local Board of Health Summer Internships

Location: Jamaica Plain, MA

Title: Intern- Expedited Partner Therapy Evaluation, Division of Sexually Transmitted Disease Prevention

Introduction: The Massachusetts Department of Public Health (MDPH) promulgated regulations in August 2011 to permit prescribing clinicians to prescribe or dispense antibiotic treatment for the partners of persons with chlamydia without having to examine the partner (Expedited Partner Therapy, EPT). In January 2012, MDPH revised the chlamydia case report form to capture information regarding partner notification and treatment including EPT. We reviewed the first 6 months of data collected on partner notification and treatment.

Methods: SAS 9.3 was used to analyze data on reported, laboratory-confirmed chlamydia cases documented as diagnosed between January 1, 2012 and June 30, 2012. Main outcome of interest was provider participation in EPT through the use of patient-delivered medication and/or prescription. Information on treatment setting, method of partner notification, patient sex and patient age category was also analyzed.

Results/Outcomes: A total of 11,623 chlamydia cases were identified. 2,830 reported partner notification use, mainly via patient notification of partners (n=2,784, 24%). Providers offered EPT 6% of the time (n=684). 337 reported using patient-delivered prescription(s) only (3%); 291 reported using patient-delivered medication(s) only (3%); 56 reported using a combination of methods (<1%). School-based clinics, private practices/HMOs, and community health centers reported using EPT in a larger proportion of patients (45/267, 17%; 152/912, 17%; 206/1253, 16%). Female patients were reported to receive EPT more frequently than male patients (588/8102, 7% vs 96/3501, 3%). A minority of case report forms had complete information. Newness of the regulations and varied interpretation of the EPT questions may have increased the amount of missing data.

EPIDEMIOLOGY

Name: Kate Beauchamp

Practicum Site: Boston Medical Center- Office of Patient Advocacy

Location: Boston, MA

Title: Patient Advocacy Office Intern

Introduction: During my time in the Patient Advocacy Office at Boston Medical Center (BMC), I: 1.) Worked to create a culturally competent bereavement resource for BMC clinicians in order to better address the needs of BMC's diverse patient population. 2.) Learned how to facilitate discussions between patients and staff to improve patient experience at BMC. 3.) Learned how to navigate ethical dilemmas in the hospital setting.

Methods: 1.) I located several excellent resources for the Patient Advocacy team to use in order to help patients with different cultural backgrounds through the bereavement process. 2.) I observed members of the patient advocacy team communicate with patients and their families about their experiences at BMC. 3.) I also attended Ethics Committee meetings and educational seminars in order to gain understanding about how to navigate ethical dilemmas in the hospital.

Results/Outcomes: 1.) I compiled cross cultural bereavement resources into an annotated bibliography and made this resource available to the Patient Advocacy team as well as the members of the bereavement committee. 2.) I functioned as a patient advocate by taking on my own patient advocacy cases. 3.) I participated in family meetings where ethical issues arose in patient care and discussed approaches to various problems with the patient advocacy team.

Name: Meghan Bratton

Practicum Site: Massachusetts Department of Public Health—Local Board of Health Summer Internships

Location: Burlington, MA

Title: Environmental Health Intern, Division of Epidemiology and Immunization

Introduction: A bylaw passed in Burlington, Massachusetts bans the use of Sodium Chloride (NaCl) as a deicing agent in parts of town. Although NaCl is necessary to keep roads clear, there is danger that water runoff will contaminate the public drinking wells. The goal of the internship at the Burlington Board of Health was to look at the effect the bylaw has on protecting the town's drinking water and the effect of lessening the bylaw.

Methods: In order for a report to be constructed levels of NaCl in the seven wells were analyzed. The association between the levels of NaCl with weather patterns, the effect of improper storage and application, and the trend of levels over time was examined. Some of the NaCl data was in the Burlington office while the rest was collected from Vine Brook Water Treatment Facility. Charts were generated in excel and a draft of the report was written.

Results/Outcomes: There are gaps in the data that made it difficult to form conclusions about the trends in well levels and whether the NaCl ban is still warranted. While the board of health knew there was not enough data to form a conclusion, I was encouraged to complete as much of an analysis as possible and develop a report that will be used as the foundation for future reports.

Name: Meagan Burns

Practicum Site: Massachusetts Department of Public Health- Local Board of Health Summer Internships

Location: Dover, MA

Title: Dover Board of Health Lyme Disease Committee

Introduction: The Lyme Disease Committee at the Dover Board of Health seeks to decrease incidence of Lyme disease by increasing Lyme disease awareness and educating Dover residents. To contribute to this effort, data on Lyme disease in the area was collected in two ways.

Methods: First, a survey was developed and sent to 472 physicians in Metro West Boston asking them about their Lyme disease reporting practices. Second, deer tick (*Ixodes scapularis*) population densities in outdoor recreation areas were measured using drag cloth technique.

Results/Outcomes: Among physicians who received surveys, 38% responded. Respondents reported that they had diagnosed 2670 cases of Lyme disease and reported 58% of these cases (range: 0-100%) to the Massachusetts Department of Public Health. The most common reasons cited for not reporting were that the process was perceived as too cumbersome (47%), and that Lyme disease was too common (36%). This suggests that Lyme disease may be underreported in Metro West Boston, possibly due to the time and paperwork involved in reporting, as well as high incidence of the disease. The measurement of tick density found higher population densities in shady areas than in sunny areas: 95% of all ticks collected were found in shady areas, and the median number of ticks was 6.0 in shady areas and 0.0 in sunny areas, consistent across all sites individually. This suggests that individuals may be more likely to come into contact with *Ixodes* in shady areas than in sunny areas, and additional precautions to avoid tick bites may be advisable.

Name: Stephanie Croall

Practicum Site: Massachusetts Department of Public Health—Local Board of Health Summer Internships

Location: Everett, MA

Title: Energize Everett Intern , Division of Epidemiology and Immunization

Introduction: A food system is shaped by economic, environmental and social factors that affect the community's vitality, sustainability and health. The purpose of this internship was to work closely with Energize Everett (EE) to research how food access is linked to social justice and health, assess food access in Everett, MA and to sustain/further develop initiatives to counteract food system deficiencies.

Methods: To complete these objectives I reviewed literature on food access, supermarket relining and social determinants of health to diagram the links between food access and health outcomes. I designed a booklet to illustrate resident's perspectives on food access. To evaluate the local food system I mapped food points within the Cambridge Health Alliance and layered maps with community demographics. I used the CDC CHANGE tool to assess policies associated with nutrition. To improve food access, I aided in the promotion of the Farmers Market and Healthy Dining Program (HDP). I updated the criteria and brochures for the HPD and solicited participants.

Results/Outcomes: Limited food access negatively affects residents whom do not have the time, income or means to access healthful foods. The alternative is to shop at convenient stores and food venues with sparse healthful options. There are few policies in place that support nutritional wellness in the community. The booklet has been utilized as an educational tool on food access and social justice for residents, policy makers and organizations and has provoked discussion for change. The HPD is currently being promoted and is within the implementation stages.

Name: Lauren DeBerry

Practicum Site: Boston Medical Center- Emergency Department

Location: Boston, MA

Title: Data Analysis Intern

Introduction: According to the National Institute on Alcohol Abuse and Alcoholism, binge drinking is a pattern of drinking that brings a person's blood alcohol concentration (BAC) to 0.08 grams percent or above. On average, men reach this BAC at 5 or more drinks consumed in about 2 hours; women, 4 or more drinks in about 2 hours. In the United States, excessive alcohol consumption is the third leading behavior-related cause of death. Binge drinkers are 14 times more likely to report alcohol-impaired driving than non-binge drinkers. Additionally, excess alcohol consumption bears great economic costs to the healthcare system, legal and criminal justice systems, and lost productivity.

Methods: Self-report data derived from adult binge drinkers responding to the Behavioral Risk Factor Surveillance System, BRFSS, optional 2008 binge-drinking module was analyzed. The data included study participants' alcohol consumption and cash expenditure per binge episode. Statistical Analysis System (SAS) was used to produce frequency tables and linear regression models to analyze price elasticity trends.

Results/Outcomes: Findings illustrate demographic trends among the binge drinkers and a possible inverse relationship between the cost of alcohol and number of drinks consumed. Such price elasticity studies could be used to determine alcohol price points that deter binge drinking. Further investigation is required to account for anomalies discovered in the data set.

Name: Cassandra Driscoll

Practicum Site: Boston Medical Center—Department of Surgery

Location: Boston, MA

Title: Division of Trauma Intern

Introduction: Acted as a research assistant for two studies under the Department of Surgery, Division of Trauma at Boston Medical Center. The first study, "Evaluating Three Methods to Encourage Mentally Competent Older Adults to Assess their Driving Skills," is a randomized control trial that aims to aid the participants in assessing their driving habits in order to prevent car related injuries. The next study, "Sleep Practices in Families with Infants in an Urban Academic Hospital," is a cross-sectional study designed to determine the prevalence of safe and unsafe sleep practices and environments for infants and toddlers in the population served at Boston Medical Center (BMC).

Methods: In the Older Adult driving study my responsibilities included recruitment and enrollment of participants, as well as conducting a mini-mental state exam, driving assessment, and brief negotiated interview. Other responsibilities included follow-up of participants by administering a posttest questionnaire and data entry. For the safe sleep study, responsibilities included enrollment of infants by administering a questionnaire to caretakers of children under the age of two. I was also responsible for data collection, data entry, and manuscript development.

Results/Outcomes: These two studies are still ongoing. In the Older Adult Driving Study we hypothesize that there will be improvement among all participants, but the largest change in driving behaviors and attitudes are expected among the participants receiving the brief negotiated interview. Thus far, the results showed that the majority of caregivers in the sample population sleep their infants and toddlers unsafely.

EPIDEMIOLOGY

Name: Alan Fossa

Practicum Site: Boston Public Health Commission

Location: Boston, MA

Title: Research Intern

Introduction: The connection between the environment and health has been well established in various research areas. The goal of the IPMIIS study centers on understanding the effects of the home environment on symptoms of anxiety, stress, depression and asthma in Boston Housing Authority residents as it relates to pest management practices. Specifically the study focuses on the potential difference in the effects of “integrated pest management” (a non-pesticide based method) versus traditional pest management practices. The study also examines the general feasibility and cost effectiveness of the different methods.

Methods: I worked as an intern in the research division of BPHC on the IPMIIS study. My primary responsibilities were data collection and enrollment of participants into both cross-sectional and follow-up arms of the study. Data collection involved going to various public housing developments around Boston and carrying out enrollment of randomly selected participants at each location. A single enrollment consisted of administration of surveys and a home inspection as well as collection of two environmental samples if the participant was asthmatic. I also work with a Spanish translator to generate electronic versions of the Spanish surveys.

Results/Outcomes: Enrollment in IPMIIS remained steady through the summer. The data collection is set to be completed by the end of this year. Three Spanish electronic surveys were completed, enough to obtain a full cross-sectional enrollment electronically. I gained valuable experience working as part of a community based research team. The practicum also gave me unique insight into the BHA resident community.

Name: Mary Hays

Practicum Site: Boston Medical Center- Endocrine/Diabetes/Nutrition/Weight Management

Location: Boston, MA

Title: Clinical Research Coordinator

Introduction: The Nutrition and Weight Management Program at Boston Medical Center provides medical and surgical treatment for obesity. This treatment consists of guidance in eating behavior, food choices and activity levels. As the surgical option of bariatric surgery often results in nutritional deficiencies, it is necessary to examine nutrient levels both before and after surgery and compare them among races and between sexes.

Methods: As a clinical research coordinator, I was responsible for various departmental initiatives. My projects included: 1) Using SPSS to perform chi-square tests and mixed model analyses of the data, 2) Verifying laboratory values with dietitian, 3) Entering data into patient database and 4) Identifying health issues for future hospital development.

Results/Outcomes: Iron deficiency judged from ferritin levels is a large problem after gastric bypass surgery. Since iron deficiency is caused by decreased hematocrit and other factors, this issue cannot be solved fully with iron supplementation. In my SPSS crosstabulation analysis, 25.3% of 79 African-American females had a ferritin deficiency (less than 26 ng/ml) before surgery. One year after surgery 36.3% of 113 African-American females had a deficiency, and two years afterward 55.8% of 43 had a deficiency. Additionally, 9.2% of 380 African-American females had a hematocrit deficiency (less than 36% for women) before surgery. One year after surgery 17.5% of 166 had a hematocrit deficiency, and two years afterward 30.5% of 82 had a deficiency. African-American females are at highest risk for developing iron deficiency after gastric bypass and may need to be more closely monitored in future practices.

Name: Jillian Jessup

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

Location: Boston, MA

Title: Perinatal Epidemiology Intern

Introduction: The Boston Public Health Commission works alongside stakeholders in the health community to improve the city's health outcomes and work for a healthier Boston. In this position, I assisted in the development and execution of two initiatives aimed to reduce birth disparities in the city of Boston, the Strong Start grant proposal and the Boston Perinatal Clinical Taskforce.

Methods: The practicum involved design, dissemination, and analysis of a survey sent to 18 collaborating sites on the Strong Start Grant to garner a representation of women receiving prenatal care at each site. A second survey was sent to 10 health centers to determine their access and use of long acting reversible contraceptives to serve as background information to develop a state wide contraception policy out of the Boston Perinatal clinical taskforce. I also planned and formatted a web portal to provide information on the Taskforce initiatives, as well as Perinatal health information and tools for patients, providers, and community health organizations.

Results/Outcomes Upon award of the Strong Start grant funding, the BPHC will be able to implement a project that will address poor birth outcomes in Boston to effectively minimize birth disparities. The continued development of the Boston Perinatal Clinical Taskforce and its four initiatives, development of progesterone protocol, creation of an inter-conception pilot program, formation and implementation of policy to improve access to contraception, and development of a website providing Perinatal health information, will address continued social and clinical factors associated with disparities in birth outcomes.

Name: Ana Kantorowski
Practicum Site: Boston Medical Center- Center for Infectious Disease
Location: Boston, MA
Title: Evaluation of the Prevention and Screening Program

Introduction: By providing free testing and free or low-cost treatment services, the Prevention and Screening Program at Boston Medical Center (BMC) helps detect sexually transmitted infections (STIs) and promotes better sexual health of the community.

Methods: The aims of my practicum were to describe the population using BMC Prevention and Screening Program services, to determine if HIV-infected patients who receive initial HIV treatment are likely to continue, if HIV-infected patients who attend their first appointment are more likely to continue based on whether solicited by a CID counselor, and if HIV treatment at the CID clinic improves health outcomes. Data for this project were extracted from the CID Prevention and Screening database and was supplemented with information from BMC's electronic medical records. All data were analyzed using Microsoft Excel and SAS v. 9.1.

Results/Outcomes: From June 2010 to April 2012, patients using BMC Prevention and Screening Program services were predominantly Non-Hispanic Black (49.6%), male (67%), and the average age was 34 years old. Among 118 HIV-infected patients who initiated treatment, 44% continued to receive treatment. HIV treatment at the CID clinic was shown to improve health outcomes, as demonstrated by the reduction of viral loads from baseline at 3 (median difference = -6934 copies/mL, $p < 0.001$), 6, and 9 months of treatment; and increases in CD4 counts at 3 (mean difference = 70.4/mm³, $p = 0.0026$), 6 (mean difference = 68.1/mm³, $p = 0.0024$), and 9 (mean difference = 75.7/mm³, $p = 0.0021$) months of treatment.

Name: Seth Kuranz
Practicum Site: Boston Medical Center- Department of Pediatrics
Location: Boston, MA
Title: Violence/Substance Abuse Research Intern

Introduction: The purpose of the practicum was to assist with the preparation of a manuscript for publication to present the results of the association between prenatal exposure to cocaine and other psychoactive substances and later problematic substance use. The prospectively collected longitudinal data for this study provides a rich set of measures to control for covariates and address multiple contributing variables.

Methods: A literature review provided background regarding teen problem substance use and the association with prenatal substance exposure. In addition, a review of the definition of problematic substance use in the scientific literature was performed in order to assess whether or not the definition used in the current study was defensible. Weekly data analysis meetings ensured an opportunity to interpret results and observe study protocol. This included logistic regression and path analysis results.

Results/Outcomes: The definition of problematic substance use used in this study appears to have face and content validity. The literature review for the introduction of the manuscript demonstrates that the relationship between prenatal exposure to psychoactive substances and later problem use is complicated. The analysis of the data must address issues related to small sample size, choice of covariates and multiple measurements over time. Preliminary study results demonstrate that violence exposure and age of initiation play a key role in understanding the association between prenatal exposure and problematic use. Potential implications for these results include the support of prevention strategies to delay onset of drug use.

Name: Dominick Leone
Practicum Site: Massachusetts Department of Public Health– Local Board of Health Summer Internships
Location: West Springfield, MA
Title: Arthropod Surveillance Program

Introduction: To assess and reduce risk of tickborne disease in West Springfield, I determined the presence of ticks, their locations, and ecology to guide future public health efforts.

Methods: As a Public Health Intern, I collected ticks from 44 locations using transect drag and flagging and recorded their locations using GIS. To assess peridomestic and outdoors risk, I examined the following areas: peridomestic areas abutting woods (13.33%); Woods (8.89%); open fields (13.33%), fields abutting a wooded area (15.56%), and sports-fields (8.89%); Shrub-type (4.44%); trails (24.44%); wetlands: (4.44%); and park-recreational areas not otherwise specified (6.67%).

Results/Outcomes: A total of 19 Ticks were collected from 24.44% of sites (95% CI, 0.1288, to 0.3954). Of those, 15 (78.95%) were Dermacentor and 4 (21.11%) were Ixodes. Dermacentor were present at 20.00% of sites (CI 95%, 9.58 to 34.60), while Ixodes were present at 6.67% of sites (CI 95%, 1.40 to 18.27). Peridomestic sites showed marginally significant presence of ticks at 50.00% ($p = 0.0839$), 100% of which were Dermacentor. Trails and Woods showed significant presence of Ixodes at 18.18% (CI 95%, 2.28 to 51.78) and 25.00% (CI 95%, 0.63 to 80.59) of the time respectively. No significant (spearman) correlation was found between the presence of ticks, temperature, and humidity. Tick ecology of West Springfield demonstrates the difficulties of using tick surveillance in risk assessment and points to recommendations that residents assume ticks are present outdoors and take steps to reduce their exposure.

EPIDEMIOLOGY

Name: Shannon McGrath

Practicum Site: Massachusetts Department of Public Health—Local Board of Health Summer Internships

Location: Boston, MA

Title: Data Quality Assessment of Clostridium Difficile Reported to MDPH, Bureau of Infectious Disease

Introduction: Clostridium difficile is a gastrointestinal infection that is often healthcare-associated. Due to newer, more virulent strains, morbidity and mortality have steadily increased over the past decade. In Massachusetts, C. difficile is reportable to the Massachusetts Department of Public Health by hospital laboratories reporting via Electronic Lab Reporting. During the 2011 calendar year, over 8,000 positive C. difficile lab results were electronically reported by 44 hospitals. To date, these data have not been checked for quality or completeness, hospital testing methods have not been compared to national recommendations, and the true burden of disease in the state has not been quantified

Methods: Two surveys were developed and administered to the microbiology laboratories and infection preventionists of the 73 acute care-hospitals in Massachusetts. Infection prevention surveys addressed each facility's reporting requirements, participation in local collaboratives, methods used to identify and classify C.difficile cases, and the number of healthcare-associated cases and clusters in 2011.. The laboratory survey addressed test methodology, adherence to the American Society for Microbiology (ASM) 2010 guidelines for C. difficile testing, the number of C. difficile tests performed in 2011 and the number that tested positive.

Results/Outcomes: Survey data was received from 60% of microbiology laboratories and 73% of infection preventionists. By the end of the year 2011, 71% of responding labs who perform C.difficile testing used an algorithm recommended by ASM. Hospital C.difficile infection rates range from 0 to 66 per 10,000 patient-days, with a mean of 6.2. Additional analyses are ongoing.

Name: Mucho Mizinduko

Practicum Site: Dartmouth Medical School/Muhimbili University Collaboration Health Study

Location: Dar es Salaam, Tanzania

Title: DarDar TB Vaccine Cohort

Introduction: The DarDar Health programs, harbors the DarDar Tuberculosis Vaccine Trial that was sponsored by the National Institutes of Health and conducted from 2001 – 2008 among 2,013 HIV-infected volunteers in Dar es Salaam, Tanzania. The trial aimed at establishing the efficacy of a TB vaccine in protection against tuberculosis in HIV infected adults. In 2010, the Principal Investigators decided to conduct extended follow up of the study patients who participated in the trial. The follow up data would be used for some longitudinal analyses to be conducted on this cohort. My task was therefore to organize this extended follow up data and update the study database.

Methods: As a trainee, I worked together with the Principal Investigators and field supervisor to organize data that was collected and updated the study database with this data. I reviewed the raw data collected from study participant's files. I updated the study database with this extended follow up data. I also created an excel spreadsheet with fields and dates of information we need for analyses. Lastly, I imported this data from the updated database (FileMaker Pro version 5.5) into the excel spreadsheet I created.

Results/Outcomes: My practicum output (dataset) will be used for longitudinal analyses to be conducted on this cohort. As a trainee, I learnt to use a FileMaker Pro database in many ways including exporting data to other formats. Apart from the database and the dataset I have produced, I will continue working with project's Principal Investigators to analyze this data.

Name: Natalie Morgenstern

Practicum Site: Vertex Pharmaceuticals Incorporated- Global Patient Safety

Location: Cambridge, MA

Title: Intern

Introduction: The FDA and European Medicines Agency (EMA) approved two drugs produced by Vertex Pharmaceuticals within the past year. Both the FDA and the EMA require pharmaceutical companies to monitor adverse event databases and other sources in search of new, potential side effects, known as signals.

Methods: I used Empirica™ Signal software to design an electronic system for tracking and auditing potential signals that will be reported to Vertex Pharmaceuticals in the future from patients around the world. I developed an interactive system to permanently capture and track how the Vertex physicians' understanding of the medical events evolves. Signals must withstand two status changes before being considered for label inclusion: Signals must be validated as existing due to a potentially causal mechanism, and then they must be verified as actually existing due to a causal mechanism. I used a variety of linked drop-down menus and free text boxes to allow Vertex physicians in the Global Patient Safety department to have the ability to add comments, request specific follow-up, and log dates and times in the system as signal understanding evolves.

Results/Outcomes: While the final system has not yet gone live, it has undergone several test runs using a variety of old signals to confirm the system is robust and comprehensive. This system translates into enhanced drug safety surveillance. It allows for better pharmacovigilance practices and will increase the efficiency of the Global Patient Safety department. Increase efficiency translates to better drug surveillance and appropriately labeled drugs.

Name: Marilyn Moro Carrion

Practicum Site: Pathways to Wellness

Location: Boston, MA

Title: Evaluation of an Acupuncture Program's Effectiveness on Treating Patients with Different Clinical Conditions.

Introduction: Pathways to Wellness, Inc. is a nonprofit public health organization committed to providing equal access to high quality holistic care. A large managed care organization has funded a 5+ year project at Pathways to Wellness to evaluate clinical effects of acupuncture and patient satisfaction with treatment. Almost 500 individuals were referred for acupuncture treatments to address one of the following symptoms: musculoskeletal pain, carpal tunnel syndrome, headaches/ migraines, menstrual or menopausal difficulties. A questionnaire was offered to each study participant at their first and last acupuncture treatment-visit based on reason for referral.

Methods: As a Data Analyst Intern, I was deeply involved in the abstraction, entering, cleaning and analysis of these 5 years worth of data. While evaluating client-survey and clinical data for the efficacy of acupuncture treatments on reason for referral, I was able to; obtain demographic information, create tallies and data summaries, generate descriptive statistics, develop graphics and figures, and conduct simple analyses (i.e. paired t-test, chi square test) on clinical parameters such as symptoms frequency, severity and duration by comparing baseline clinical data with completion results per individual (Using an Excel spread sheet, SAS and R as statistical tools).

Results/Outcomes: By summarizing demographics and conducting preliminary analyses, Pathways to Wellness will have a more comprehensive scope of the effectiveness and reliability of acupuncture treatments towards these pain/symptoms classifications. Further statistical analyses (regression analyses) will be also performed on characteristics such as age, gender, number of treatments, level of specific symptom (i.e. average level, most severe level) and others.

Name: Anthony Osinski

Practicum Site: Massachusetts Department of Public Health– Local Board of Health Summer Internships

Location: Brookline, MA

Title: Disease Surveillance and Informatics Internship

Introduction: In June 2012, the Massachusetts Department of Public Health notified the Brookline Health Department that a number of cases of salmonellosis had been genetically matched, indicating a possible common source of exposure. Upon follow-up investigation, it was found that 83% of laboratory-confirmed cases ate at the same restaurant chain during their respective incubation period. With this evidence, I assisted in investigations to determine any possible causal links and end transmission of disease.

Methods: Epidemiologic investigations and environmental assessments were coupled with laboratory analyses in order to determine possible causes. I conducted case interviews to produce detailed food histories. Additionally, I assisted in extensive environmental inspections, including collecting and submitting food samples for laboratory testing. I also aided in distribution of sampling kits for foodhandlers.

Results/Outcomes: Food histories obtained did not point to any single food item as solely suspect. Patterns of violations were found during environmental inspections, and complex inter-location food distribution arrangements were identified. It was also found that a foodhandler was symptomatic just prior to symptom onset for many cases. Laboratory results from specimens and samples were negative or inconclusive. Despite the lack of a clear causal agent, it remains plausible that salmonella proliferation occurred at this restaurant, especially given patterns of violations, potentially unsafe food distribution practices, and the identification of a symptomatic foodhandler. Following the implementation of firm preventive measures, however, we are confident that the risk of a subsequent outbreak event associated with this restaurant chain has been

Name: Nausheen Punjani

Practicum Site: Massachusetts Health and Relationships Project

Location: Boston, MA

Title: Assistant Researcher, Relationships and Health Study

Introduction: The Massachusetts Health and Relationships Project aims to observe long-term relationships of married, cohabitating, gay, lesbian, and straight couples of 7 years or more to examine health behaviors between relationships. My practicum primarily focuses on recruiting participants, listening to interviews, collecting data, and some simple data analysis to further characterize this study population.

Methods: In this study, we conducted in-depth interviews on health experiences of long-term gay, lesbian, heterosexual cohabiting and married couples in Massachusetts. To be included in the study, participants had to be between 40-60 years of age and should have been together for at least 7 years. Participants of the study were interviewed and kept an online diary, which contains questions about daily experiences that may have influenced their relationship and their health for that day. For this practicum, we recruited participants and worked with local Lesbian, Gay, Bisexual, Transgender (LGBT) organizations. Methods of analysis include review of interview audio transcriptions, scheduling and organization of demographic and maintenance of the collected data. We also performed demographic analysis focusing on the characterization of the participants in the study in regards to geographical location, race, and ethnicity.

Results/Outcomes: The project is currently ongoing and it is still in the initial recruitment phase. Overall, my practicum provided MassHARP with participants, data collection, organization, and initial data analysis.

EPIDEMIOLOGY

Name: Maya Rauth

Practicum Site: Pathways to Wellness

Location: Boston, MA

Title: Data Coordination/Analysis Intern

Introduction: Pathways to Wellness is currently conducting a study for a managed care organization to evaluate the effect of acupuncture treatments on five primary outcomes: musculoskeletal pain, headaches, carpal tunnel syndrome, and both menstrual and menopausal symptoms. The study has just completed its fifth year and the primary goal of this practicum was to incorporate all new data into pre-existing databases in order to complete comparison analyses of initial clinical symptoms with those post-treatment. Also, new data for client satisfaction surveys were entered and analyzed in order to evaluate the current services at Pathways to Wellness.

Methods: This practicum involved data abstraction from surveys and clinical records, and integrating this information into databases containing previous years' results. Descriptive tallies, summaries, and visuals were created for both clinical and client satisfaction data. Statistical analyses were completed for three of the main outcomes of interest: pain, headache and menstrual symptoms. The last two outcomes, carpal tunnel and menopausal symptoms, consisted of very small sample sizes and did not qualify for statistical analysis.

Results/Outcomes: The client satisfaction data (N=266) indicated an overall appreciation for the services at Pathways to Wellness and will help the administrators evaluate their current programs. Comparisons of clinical data (N=492) generally indicated a reduction in symptom severity after receiving acupuncture treatment. The completed summaries and analyses will help both the managed care organization and Pathways assess the success in reducing the symptoms of the five primary outcomes.

Name: Rasneet Sandhu

Practicum Site: Barnstable County Department of Human Services

Location: Barnstable, MA

Title: Research Intern

Introduction: Members of the County Health and Human Service Advisory Council and other constituents have raised concerns regarding the extent of substance abuse and mental health challenges faced by residents of Cape Cod and the adequacy of services to meet residents' needs. While working at the Barnstable County Department of Human Services, my practicum involved carrying out a comprehensive assessment of the behavioral health (mental health and substance abuse) landscape including trends, prevention activities and treatment services on Cape Cod.

Methods: First, I analyzed secondary data and assisted in creating several reports to quantify the region's behavioral health trends. I created a questionnaire to collect primary data regarding mental health, substance abuse and stigma prevalence. I assisted my supervisor in conducting initial interviews to collect qualitative data from behavioral health service providers and affected residents.

Results/Outcomes: The research results will serve as a foundation for future planning by the region's organizations and coalitions that already provide or are planning mental health and substance abuse prevention activities and treatment services. The assessment findings and reports are published on the department's website to inform the community and public health organizations on the health and well-being of Cape Cod residents. One of these reports, Suicide on Cape Cod and the Islands Bulletin, was presented at a recent Cape and Islands Suicide Prevention Coalition meeting. Post practicum, I will be assisting the department and coalition in planning a local campaign to increase awareness of mental health issues and to reduce stigma, using a social marketing approach.

Name: Elizabeth Suarez

Practicum Site: New England Research Institute- Epidemiology

Location: Watertown, MA

Title: Research Associate

Introduction: In 2011, antipsychotic medication spending in the US increased 12.7% and antidepressants were among the most dispensed prescriptions. Previous research suggests use of increasingly popular psychoactive medications increases risk of urinary problems. This practicum explored the relationship between psychoactive medications and lower urinary tract symptoms (LUTS).

Methods: The Boston Area Community Health (BACH) survey is a community-based epidemiologic survey of sexual and urologic problems conducted from 2002-2010 on 4,145 men and women. Psychoactive medication use was assessed by home medication inventory and self-report. LUTS were self-reported using the validated American Urological Association (AUA) symptom index. Using logistic regression, odds of score progression (2+ point increase vs. not) or improvement (2+ point decrease vs. not) over 5 years of follow-up were separately predicted from psychoactive medication use (baseline only, follow-up only, continuous, or never use). Psychoactive medications included serotonin-specific reuptake inhibitors or serotonin-norepinephrine reuptake inhibitors (SSRI/SNRIs) and atypical antipsychotics (AAPs).

Results/Outcomes: Among female SSRI/SNRI users, new users had higher odds of score progression vs. non-users [OR=1.70, 95% CI=(0.94-3.07)] and former users had higher odds of score improvement [OR=2.83, 95% CI=(1.16-6.87)] vs. non-users. Among AAP users, new male users had higher odds of score progression [OR=4.78, 95% CI=(1.43-15.93)] and former female users had lower odds [OR=0.09, 95% CI=(0.02-0.35)] vs. non-users. SSRI/SNRI use among women and AAP use among men may contribute to LUTS. Discontinuation of either medication by women may have beneficial effects. These results suggest certain classes of psychoactive medications are associated with LUTS, and risk varies by sex.

Name: Mallory Zambolla

Practicum Site: Massachusetts Department of Public Health—Local Board of Health Summer Internships

Location: Easton, MA

Title: Summer Intern, Easton Board of Health

Introduction: My internship with the Easton Health Department involved the completion of two projects. The dispersion of public health information throughout the community was the aim of the first project, while the second project promoted sanitation and compliance with state regulations.

Methods: The first project, rooted in independent online research, launched a school information campaign. I created monthly health newsletters for students and parents. This project developed a partnership between the Board of Health and Easton Public Schools. The second project involved manually extracting data from town files to create a database of the large septic systems located within Easton condominium complexes. Information included the number of units and bedrooms supported by the system, design flow capacity, and Title 5 inspection dates. I also performed fieldwork evaluations of soil, pools, camps, restaurants, and septic systems.

Results/Outcomes: The first project resulted in fifteen informational newsletters (including exercise and flu) posted on the school's website. Continuation of these online informational newsletters requires active communication between the Health Department and Easton Public School administration. Topics relevant to time of year should be maintained accordingly.

HEALTH LAW, BIOETHICS & HUMAN RIGHTS

Name: Christine Baugh
Practicum Site: Sports Legacy Institute
Location: Boston, MA
Title: Advanced Concussion Training Program Intern

Introduction: The increasing evidence that concussions can have both immediate as well as long-term effects has increased the awareness of concussions as a public health problem. Recent changes in several states' legislation regarding youth concussions mandates concussion education for parents, coaches, athletic directors, and other adults involved in youth athletics. The Sports Legacy Institute (SLI) provides concussion education programs for adults overseeing youth sports through their Advanced Concussion Training program (ACT). In order to ensure that the ACTs are effective, SLI administers pre- and post- surveys to those who attend their ACTs.

Methods: Those who attended SLI's ACT sessions were asked to complete an 18-item questionnaire prior to the program and the same questionnaire following the program. Using previously administered questionnaires, pre- and post- survey data was compiled. Responses were analyzed to determine whether individuals scored higher overall in their knowledge of concussions and concussion safety after the ACT as compared to before. Item-level responses were also examined to determine whether survey questions could be improved.

Results/Outcomes: Overall, the survey results indicated that individuals were benefitting from the ACT program (i.e. leaving with a greater knowledge of concussions). After item-level response analysis, the questionnaire was improved by better aligning the language in some of the questions to the language used throughout the presentation.

Name: Michelle Kielty
Practicum Site: Partners Healthcare—Corporate Finance Division
Location: Charlestown, MA
Title: Government Revenue Intern

Introduction: The Partners HealthCare Government Revenue Department within the Corporate Finance division budgets, monitors, forecasts, and analyzes the revenue streams of government payers and closely follows new developments in Medicaid and Medicare payment methodologies. The department also educates clinical leaders in Partners entities about government reporting requirements, payment policy updates, state pilot demonstrations, and other changes taking place as part of health care reform that impact the way Partners hospitals are reimbursed for services. The purpose of this practicum was to assist Partners in monitoring trends associated with government payment policy and health care reform, particularly with regard to Medicaid strategies.

Methods: To study the organization of state Medicaid service delivery systems across the U.S. and research related reform strategies, I attended monthly Medicaid Update Meetings at Partners Corporate, met with Partners Government Affairs leaders to discuss relevant initiatives, and surveyed the literature on state Medicaid programs provided by Partners, the Kaiser Family Foundation, CMS reports, and state governments.

Results/Outcomes: My research culminated in an 8-page white paper, made available to the Business Planning & Market Development team at Partners, outlining national trends in Medicaid innovation and featuring Oregon and North Carolina as key states with advanced reform strategies. The report identified major trends in Medicaid service delivery including the increased use of enhanced payment methodologies (i.e. targeted fees, shared savings, pay-for-performance programs), the expansion of alternative models of managed care (i.e. PCCM programs), and the restructuring of MCO contracts to include previously carved-out services.

Name: Shannon Mcauliffe
Practicum Site: Boston Medical Center—Office of Patient Advocacy
Location: Boston, MA
Title: Patient Advocacy Intern

Introduction: The Office of Patient Advocacy serves to assist all patients before, during and after their visits to Boston Medical Center. Patient questions and concerns are addressed in the hope of improving care for future patients and providing "exceptional care without exception" for current patients.

Methods: I assisted in the daily activities of the office. I answered calls from patients and tried to help them address their questions and concerns by reaching out to other members of the BMC staff, completing care reports for each patient. I made rounds on inpatient floors to speak with patients and to ensure they felt like they were receiving the best possible care. I assisted surgical room liaisons, keeping family members updated while a loved one was in surgery. I also attended hospital meetings with other patient advocates.

Results/Outcomes: Throughout my practicum experience, I learned about the role of a patient advocate and how important such a role is in an immense hospital like BMC. By serving as an interface between patients and healthcare providers, patient advocates strive to improve care for all patients and families who pass through the doors of Boston Medical Center.

HEALTH LAW, BIOETHICS & HUMAN RIGHTS

Name: Amy Mueller

Practicum Site: Boston Medical Center- Children's HealthWatch

Location: Boston, MA

Title: Children's HealthWatch Practicum

Introduction: Children's HealthWatch (CHW) is a research group based at BMC that monitors the impact of economic conditions and public policies on the health and well-being of young children living in predominantly low-income households. Data is collected utilizing an interview that is delivered to primary care-givers of patients less than 48 months of age in the BMC pediatric emergency department. Care-givers are provided resources and referrals appropriate to the needs that are identified during the interview.

Methods: Responsibilities included; 1) Subject recruitment, delivery of interview and collection of data. 2) Delivery of appropriate resources and outreach materials to subjects as requested. 3) Utilization of excel and LMS parameters of weight-for-age and height-for-age from CDC Growth Charts to establish the number of children that are outliers based on measurements taken in the BMC ED for quality assurance purposes. 4) A literature review of publications written on the Parents Evaluation of Developmental Status (PEDS), an important child development screening tool used in the CHW survey.

Results/Outcomes: I completed 27 interviews with a refusal rate of 9.52%, comparable to the site's rate (9.24%). The analysis of these interviews is ongoing. Data on height and weight measurements collected by staff in the ED were examined for biologically implausible values and used for quality assurance purposes.

Name: Daniel Purnell

Practicum Site: National Alliance for the Mentally Ill (NAMI)

Location: Washington, D.C.

Title: NAMI Website Intern

Introduction: The most recent national survey on the prevalence of mental illness revealed that nearly half of adults will be diagnosed with a mental illness or psychiatric disability at some point in their lives. Additionally, due in large part to the stigma and shame associated with mental illness, many individuals never seek treatment, implying that the actual prevalence may be substantially higher. The National Alliance on Mental Illness is a Washington DC based organization dedicated to providing education and advocacy services for individuals living with mental illness or psychiatric disability, and the families and friends of those individuals.

Methods: An important function of NAMI is educating the public on signs, symptoms and other aspects of mental illness. It is therefore important to maintain up to date information on mental illness. This project involved conducting independent online research for purpose of updating the mental illness information pages on the official website, www.nami.org. Reviews summarizing illnesses and illness groups were drafted from this research and sent to the medical advisor at NAMI for review. Approved reviews were subsequently posted on the website.

Results/Outcomes: The result of this project is up to date information on mental illness, freely available to all visitors to the NAMI website. Review material covered prevalence, risk factors, signs, symptoms, available treatment methods including behavioral health and lifestyle changes, long term prognosis, and recovery expectations for each mental illness. This intent was twofold: broadly, to gain experience as a writer in health communications and education for the purpose of ensuring that patients; and specifically, to ensure that visitors to the NAMI website have access to the most up to date information on mental illness.

Name: Marice Tran

Practicum Site: Massachusetts State House, Office of Representative Denise Garlick

Location: Boston, MA

Title: Legislative Intern

Introduction: Massachusetts is a leader in health care reform. Continuing in this leadership role, the legislature aims to contain health care expenditures in a new payment reform bill. To fully grasp the issue, it is important to understand who the key stakeholders are and their respective stance pertaining to proposed cost containment efforts.

Methods: As a legislative intern, I was tasked with developing a database of key stakeholders in current health care reform efforts. I conducted web-based research on a number of professional organizations, advocacy groups, and health care institutions. Public hearing records also served as a source of information. Additionally, I researched the concept of accountable care organizations, which was included in the bill as a form of cost containment, and wrote a policy brief to accompany the database of stakeholders. Lastly, I analyzed the final legislation, reported on reactions from stakeholders, and identified key roles for the Department of Public Health, nurses/nurse practitioners, and physician assistants.

Results/Outcomes: I presented my project to Representative Garlick and her Legislative Aid. The database of 93 stakeholders provides a snapshot of key players, which may be expanded upon in the future. The information captures details about each organization, positions regarding reform efforts, as well as lobbying expenditures for 2011. Moving forward, Representative Garlick will use this database and supplementary reports as a baseline from which to monitor progress of health care reform initiatives.

HEALTH POLICY & MANAGEMENT

Name: Aline Babine

Practicum Site: Spaulding Hospital Cambridge- Case Management

Location: Cambridge, MA

Title: Long-Term Acute Care: Admission and Discharge Trends

Introduction: The Spaulding Hospital Cambridge is a 180-bed long-term acute care hospital that works within the Partners Healthcare network. The hospital offers complex medical care and rehabilitation services to adults and elders. As a long-term acute care hospital (LTACH), Spaulding Hospital Cambridge relies heavily on a Medicare population and the prospective payment system set up by the Centers for Medicare & Medicaid Services (CMS) and the rules surrounding it. The project involved working with the case management department to look at admission and discharge data of the Medicare population to find patterns or trends that could indicate possible areas for quality or financial improvements

Methods: Input and analysis of financial and quality data in excel as it pertained to admissions and discharges of the Medicare population. Using this information, a number of descriptive statistics, relevant graphs, and charts were developed to help look at the admissions and discharges at multiple levels, including at a diagnosis, physician, and an overall hospital perspective.

Results/Outcomes: When moving the analysis into chart and graph form it was evident that there are admissions and discharge patterns that could be improved to help even out the workload of staff and improve financial and quality measures at the hospital. Because LTACHs are reimbursed according to CMS calculated DRG based payments, making changes in these areas could have a big impact on reimbursement rates.

Name: Jennifer Chien

Practicum Site: Boston Medical Center- Department of Managed Care

Location: Boston, MA

Title: Management Services Organization Project Intern

Introduction: The Management Services Organization negotiates risk contracts between different commercial payers on behalf of Boston Medical Center and its affiliates. One of the primary focuses in managing these contracts is reducing the occurrence of leakage within out of network referrals, which potentially constitutes a great financial burden for BMC.

Methods: I conducted a current state analysis of the process for out of network referrals which will accompany the new referral tracking software in order to establish a baseline for leakage rates. Conducting in-person and phone interviews, I created process maps outlining each site's referral process and used my observations to make recommendations for implementation strategies regarding the future state referral process. Lastly, I worked with the Medical Director and referral coordinators to plan the upcoming general meeting and set its agenda and presentation deck.

Results/Outcomes: With the current state analysis finished, the MSO is now ready to proceed with the second stage of the project: implementing process changes. A general meeting between referral coordinators will be held in the upcoming month where a best of practices approach will be selected and an implementation strategy will be formulated. The current state process and leakage rates will serve as a baseline for comparison in evaluating the effectiveness of these changes.

Name: Tyler Collins

Practicum Site: Veterans' Affairs Boston Health Care System

Location: Jamaica Plain, MA

Title: Health Systems Administrative Intern

Introduction: The hiring of researchers at the VA is a long, daunting process. These employees, classified as Without Compensation (WOC) employees, can have up to 79 pages of documents to complete, depending on their research project. The current estimation to complete this hiring process is nearly 9 months for those individuals coming into VA. Concurrently, time to use awarded grant money whittles away. As such, the goal for this project was to find the bottlenecks and redundancies in the system and utilize best practices to streamline the hiring of researchers.

Methods: To understand the current state of the WOC hiring process, I conducted interviews with all stakeholders, and based on the information gleaned, created a current-state process map. This allowed me to vividly see where improvements could be made. Next, I examined the VA's national policies and directives to discern what the Boston Health System (BHS) was required to do. I also contacted other VA tertiary facilities throughout the country to determine best practices.

Results/Outcomes: A future state map prescribed eliminating redundant credentialing processes and other hiring practices to occur in parallel to one another, shaving off nearly 3 months to on-board WOCs. Furthermore, implementation of a new electronic hiring system equipped with capabilities for electronic forms will remove several weeks previously dedicated to waiting on receipt of forms. This system was already utilized by other services in the medical center and was refitted to meet the needs of research.

HEALTH POLICY & MANAGEMENT

Name: Julian D'Achille

Practicum Site: Massachusetts Department of Public Health- Bureau of Health Care Safety and Quality

Location: Boston, MA

Title: Summer Associate

Introduction: The Bureau of Health Care Quality and Safety (HCQS) is the regulatory arm of the Massachusetts Department of Public Health (DPH), directly interacting with all clinical aspects of the health care system. The Hospital Complaint Unit within HCQS is ultimately responsible for ensuring a base level of quality and safety within hospitals throughout the Commonwealth. The Hospital Complaint Unit receives all consumer complaints as well as incidents reported by health care facilities throughout Massachusetts. These incidents also include the National Quality Forum's Serious Reportable Events, which hospitals are required to report to HCQS by Massachusetts statute. The unit decides whether complaints/incidents warrant on-site investigation for potential regulatory violations, referral to another state agency with greater jurisdiction, or no further action required.

Methods: My role as a summer associate at HCQS was to perform a quality improvement analysis project. The project included an overview of the Hospital Complaint Unit work flow and processes. The bulk of the project focused on performing an eighteen month retrospective review of all complaints and incidents received by HCQS from January 2011 through June 2012, with a particular focus on Serious Reportable Events.

Results/Outcomes: An organization flowchart of the Hospital Complaint Unit was developed to better understand processes within the department. A new Intake Worksheet was created in order to allow for data analysis and internal quality improvement. The retrospective review was statistically analysed in order to generate consistent internal policies to guide the direction of future complaints and incidents.

Name: Leah Dafoulas

Practicum Site: Pfizer, Inc.- US Public Affairs and Policy

Location: Andover, MA

Title: Accountable Care: A New Environment for Healthcare Organizations and Pfizer

Introduction: Pfizer, Inc. is the world's largest pharmaceutical company in terms of revenue. Pfizer has a portfolio of products and medicines that support wellness and prevention, as well as treat and cure diseases across many therapeutic areas. Pfizer's customers include healthcare organizations within the United States. Many of these organizations are in the process of transforming how care is delivered to patients. The formation of accountable care organizations (ACOs) is one way in which these organizations are transforming care delivery. ACOs present new opportunities and challenges for healthcare organizations. Pfizer must understand ACO programs and their impact on healthcare organizations to develop a strategy for how to engage with these organizations in the future.

Methods: First, I conducted extensive research on ACO programs. Second, I assisted with interviews of health care providers and executives within ACOs in Massachusetts and reviewed results of a nation-wide survey. I then determined the impact of ACO formation on healthcare organizations. Finally, I assisted with the development of a strategy for Pfizer to engage with ACOs to maximize product revenues.

Results/Outcomes: The development of an educational presentation on ACOs used to train Pfizer colleagues. The interviews and survey results revealed the top opportunities and challenges of ACO formation. A strategy plan for Pfizer's engagement with ACOs was developed which aligned ACO priorities with Pfizer capabilities. This strategy will be used with the account management team to partner with ACOs in novel ways.

Name: Ashley Ferguson

Practicum Site: Dana Farber Cancer Institute- Medical Oncology

Location: Boston, MA

Title: Finance Intern

Introduction: The finance intern position consisted of project work, analysis, and transaction processing to optimize financial performance of a large and complex oncology division, Hematologic Malignancies, and Dana Farber Cancer Institute. One of many duties was to spear head cost reduction. As part of the independent initiative to analyze and implement cost reduction projects in the division I worked on tackling issues with RetrieveX storage.

Methods: We started the project by first analyzing the monthly invoices to see why they were so high. I presented these findings to the divisions management and received their input and opinions on the matter. From there I spoke with a representative at RetrieveX storage to get information regarding fees and processes to decide how to reorganize and go through the existing files and boxes in storage. I used that information to create two budgets for two different solutions. I then presented these budget options to the Medical Oncology management team.

Results/Outcomes: The analysis of the storage unit brought much attention to the importance of addressing this issue among many departments within Dana Farber Cancer Institute. There are strict laws and policies governing how long medical and research files need to be kept so that is an issue we are still dealing with. The ultimately lead to us retrieving groupings of boxes and reviewing them at the institute so that we can use the resources at hand rather than sending summer interns to the storage unit. We are still reviewing and attacking this storage issue.

HEALTH POLICY & MANAGEMENT

Name: Renee Hanemann

Practicum Site: Veterans Health Administration- Veterans Engineering Resource Center

Location: Boston, MA

Title: Veterans Engineering Resource Center Intern

Introduction: The New England VERC exists within the VHA to improve process efficiency and performance in the VA Hospital. I had three projects at the VERC. First, I determined the root causes of the drastic wait times experienced by Veterans seeking mental health care and provided recommendations for ways to reduce patient wait times. Second, I created a Guidebook detailing processes at the VERC for new and established employees to use as a reference. Third, I was part of a team that designed a tool that tracked the work capacity of VERC employees to aid in the project selection process.

Methods: I used lean methodology to identify waste and remove superfluous steps in the process of a Veteran receiving access to mental health services. This included Value Stream Mapping, Root Cause Analysis using Ishikawa and FMEA, and data collection/analysis. For the Guidebook, I compiled a list of processes and obtained input from employees as to how specific processes work. For the capacity tool, we determined the functional standards and tool(s) to use through research and experimentation.

Results/Outcomes: Access to mental health services can be improved through proper documentation of metrics and standardization of the process on a national scale so that deficiencies in resources can be addressed by a staffing model and system failures can be addressed through lean methodology. A rough draft of the Guidebook is completed in a wiki on the VERC SharePoint site. The capacity tool was designed using InfoPath, Excel and SharePoint, and is currently being pilot tested among employees.

Name: Caroline Hotchkiss

Practicum Site: PRIM&R

Location: Boston, MA

Title: Knowledge Center Intern

Introduction: PRIM&R has led the field in promoting the conduct of ethical research since its inception in 1974. The organization works to educate its 3600+ members worldwide and the many thousands more who attend their conferences and workshops to ensure that they have the tools to uphold the highest ethical standards and comply with regulations. The goal of the Knowledge Center (KC) is to provide comprehensive content on current and historical research ethics issues in an interactive format, easily used by the research ethics community.

Methods: At the outset, the focus was on organizing the content that PRIM&R had into databases, determining what was needed, performing research to fill in the gaps, and synthesizing all the content. At this point, the content was uploaded and the site went live. After the site went live, I drafted maintenance policies for each section of the KC that detailed the personnel responsible and the style and formatting to be used when updating. Finally, I researched and wrote a special feature page for the site, as well as created an archive of seminal scholarly journal articles to be used as content.

Results/Outcomes: The Knowledge Center was successfully launched in late May 2012 and has received positive feedback from PRIM&R's members. PRIM&R has added supplementary content and resources and will continue to do so in the future so that it assists research ethics professionals as comprehensively and effectively as possible.

Name: Alec Kherlopian

Practicum Site: Boston Medical Center- Department of Radiology

Location: Boston, MA

Title: Quality Improvement Research Intern for Post-Procedure Checklist Study

Introduction: The post-procedure checklist study began in November 2011 in response to (anecdotal= word removed) evidence of missing samples following interventional radiology (IR) procedures and concerns about poor communication in the IR Division. The "post-procedure checklist," chosen as the intervention to address these concerns, was created based on literature review, process mapping of IR procedures, and discussion with a checklist expert. As a part of the quality improvement team, my responsibility was to implement the checklist, formulate an evaluation tool, and assess the value of the checklist in improving post-procedure care communication.

Methods: In a one-month pilot study using a pre-intervention/post-intervention study design, I observed all IR team members at Boston Medical Center during and after routine IR procedures. Each IR team consisted of 1 nurse, 1 technologist, 1 attending, and 1 or 2 fellow/resident. The evaluation tool measured communication failures pre- and post-intervention as well as compliance to checklist items in the post-intervention phase (changed this sentence). Surveys were given to IR team members after each procedure to assess checklist usability.

Results: Thirty-seven procedures were observed (14 pre-intervention, 23 post-intervention) –(changed this sentence). Among inpatient and outpatient cases, brief post-procedure notes were written 3.25 times more often post-intervention relative to pre-intervention ($p=.0069$, (0.017, 0.68) 95% CI). In the subset of inpatient cases, brief post-procedure notes were written 2.7 times more often post-intervention relative to pre-intervention ($p = 0.070$, (0.0079, 1.1) 95% CI). Other system changes such as template development and instruction on template use may have contributed to measured outcomes. The survey revealed that the post-procedural checklist was user-friendly and potentially valuable.

HEALTH POLICY & MANAGEMENT

Name: Kathleen King
Practicum Site: U.S. Department of Health and Human Services- Region 1
Location: Boston, MA
Title: Regional Outreach Intern for the Office of the Regional Director.

Introduction: The US Department of Health and Human Services (HHS) is the main federal agency responsible for promoting health in the United States and for implementing the Affordable Care Act (ACA). HHS divides its operations across 10 regions to directly interact with state and local organizations within a geographic area. Region 1, headquartered in Boston, covers the New England states and is led by Regional Director Christie Hager.

Methods: I worked for the Regional Director and Regional Outreach Specialist, focusing on outreach to small businesses. I promoted benefits available to small businesses under the ACA including a tax credit for offering health insurance to their employees and a program that will allow small businesses to purchase coverage through state Health Insurance Exchanges beginning 2014. I researched components of the ACA, identified and connected with key stakeholders, created promotional messages and materials, wrote policy briefings, and catalogued small business health care success stories.

Results/Outcomes: Increasing awareness of the various components in the Affordable Care Act to all stakeholders, including small businesses, is essential to achieve the public health goals that are at the core of the law, while ensuring its political viability. The research, outreach, and creation of communications that I completed during my practicum will allow the Regional Director and her staff to more efficiently engage small businesses throughout New England and increase the two-way communication needed between HHS and those experiencing the practical impacts of the law's implementation.

Name: Tara LePage
Practicum Site: Faulkner Hospital - Credentialing Office
Location: Boston, MA
Title: Intern - Credentialing Coordinator

Introduction: In the Winter of 2012, Senior Leadership of the Brigham and Women's /Faulkner Community expressed their continued strategic commitment towards creating a seamless patient and family centered organization across campuses. The Medical Staff Offices of both institutions were encouraged to address the opportunity of streamlining provider credentialing across campuses. With a 1200-member staff at Faulkner, 900 of which are jointly credentialed at Brigham and Women's, the expectation of this alignment is to create a thorough yet more convenient process for both the credentialing administrators and the joint providers. The purpose of this practicum was to support the current processes of the Faulkner Hospital Credentialing Office during this time of alignment, while facilitating the overall transition of procedures and policies effecting both institutions.

Methods: An initial evaluation of the project timeline identified major individual projects for Faulkner including the transition to CORE Privileging and the adoption of the Medical Staff categories used by Brigham and Women's. These transitions alone called for comprehensive reviews of the Medical Staff Bylaws and Medical Staff Policies, in addition to extensive cross-facility consultation.

Results/Outcomes: Effective October 1, 2012, Faulkner will implement the adopted Category Changes and CORE privileging for all hospital faculties. Under the same implementation timeline follows the introduction of the online application via secure web for all joint providers. Joint administrative boards and leadership committees as well as extensive database interface will constitute the next stage of the alignment initiative. My employment status will follow through the completion of the Credentialing Transition.

Name: Jessica Leslie
Practicum Site: New England Healthcare Institute
Location: Cambridge, MA
Title: Health Policy Intern

Introduction: NEHI is a nonprofit, independent health policy institute dedicated to transforming health care for the benefit of patients and their families. As a member-based organization, NEHI brings together diverse perspectives from the health care community across the country- including patients, payers, providers, universities, hospitals- to find mutual solutions to mutual health care problems through collaboration, research and transformation

Methods: I conducted healthcare policy literature review, participated in and conducted interviews with healthcare leaders of quality improvement and cost reduction. I researched background information on caesarean section overuse and effective reduction interventions for the 'Bend the Curve' project aimed at identifying areas of waste providing the details on the scope and causes of waste. I collaborated with internal and external subject matter experts to gain an understanding of successful case studies describing proven practices, already implemented, to curb waste.

Results/Outcomes: Findings from the literature review show the relevance of reducing waste in health care industry and implementing health care policy aimed at maternal health. NEHI will publish the second Bend the Curve report for the benefit of its members across all sectors of healthcare.

HEALTH POLICY & MANAGEMENT

Name: Mahima Mangla

Practicum Site: Boston Medical Center- Department of Geriatrics

Location: Boston, MA

Title: Quality Improvement in Geriatric Ambulatory Care Center using Lean Methodology

Introduction: The Geriatrics Ambulatory Care Clinic in Boston Medical Center has expressed concerns with its patient flow and overall functioning of the clinic. The main concerns are lengthy patient appointments and increased patient wait times. Given that the clinic will soon be redesigning its layout, the goal was to determine current inefficiencies with the patient flow and to offer recommendations as to how these inefficiencies can be remedied. As a quality improvement intern, I examined the patient flow and determined what inefficiencies impede the clinic from functioning more efficiently.

Methods: I observed the clinic function for three months to gain data on how long each patient-related activity takes. Patient flow data retrieved by observing patients as well as shadowing physicians, nurses, and medical assistants helped create a current process map of the patient flow in the clinic. After creating a current process map the data was analyzed in three ways: (1) lean methodology, a quality improvement tool, was utilized to find and reduce inefficiencies and wastes in the patient flow; (2) value-stream mapping was implemented to determine which activities were “value/non-value adding;” and (3) root cause analysis was used to address specific wastes found in the current patient flow.

Results/Outcomes: By determining what activities are wasteful or “non-value adding,” the goal of the project is to create a future process map that is more streamlined and efficient. I hope to offer useful recommendations about the patient flow to help the clinic function more effectively and better serve its geriatrics patients.

Name: Molly Marino

Practicum Site: Boston University School of Public Health- Health and Disability Research Institute

Location: Boston, MA

Title: Disability Related Comparative Effectiveness Research: Developing an Online Course

Introduction: The Boston Rehabilitation Outcomes Measurement Center (Boston ROC) at BUSPH’s Health & Disability Research Institute, and two other NIH R24 Rehabilitation Network sites held an AHRQ sponsored conference, “New Frontiers in Disability Related Comparative Effectiveness Research (CER).” CER is an important national initiative. This practicum involved developing a course based upon the content and materials from the conference that integrates videos, text, self-assessments, and resources in a conceptually sound framework based on concepts key for adult learning. The target audience for this course is individuals engaged in disability research including doctoral students, post-doctoral fellows, scientists, residents and clinicians.

Methods: The practicum involved 1) Defining course objectives and objectives for each module 2) Consulting with potential end users to identify key concepts important to the target audience 3) Developing a library of resources and references 4) Using the SoftChalk™ software to combine text and video from conference presentations, outside readings, and additional content into a course.

Results/Outcomes: The course will be available for free on the Boston ROC website, and disseminated through the Boston ROC, the other NIH R24 Rehabilitation Networks, and professional organizations. It will provide an introduction to scientists and clinicians for translating the conventional concepts of CER into the unique field disability related research, and serve as the inaugural program for the Boston ROC’s continuing research, conferences, and courses on specific disability related CER fields.

Name: Adam Mathias

Practicum Site: Tufts Center for the Study of Drug Development

Location: Boston, MA

Title: Research Analyst

Introduction: The Tufts Center for the Study of Drug Development is an independent, academic, non-profit research group whose mission is to develop strategic information to help drug developers, regulators, and policy makers improve the quality and efficiency of pharmaceutical and biopharmaceutical development, review, and utilization. The goal of this study was to assess clinical trial enrollment rates (enrolled to screened, completed to enrolled, and completed to screened) and its association with enrollment timelines. Recent studies have shown that enrollment rates have consistently decreased over the last decade; therefore it is vital to understand factors contributing to these trends.

Methods: Clinical trial data from 2008 to 2012 was collected via a survey instrument in Excel from 17 mid-sized and major global biopharmaceutical companies. The clinical data including study phase, therapeutic area, molecule type, age of study patients, treatment and visit frequency, enrollment timelines and rates, were then thoroughly cleaned, and using SAS 9.3 analyses were performed on the various characteristics of the 242 global clinical trials. A simple linear regression analysis was used to determine if there was an association between enrollment rates and the length of enrollment timelines.

Results/Outcomes: The analyses showed a significant association between the completed to enrolled enrollment rate and the length of the enrollment timeline ($P < 0.0001$). An increase in completed to enrolled enrollment rate suggests a decrease in length of enrollment. The results of this study offer insights into how metrics can be utilized for clinical trial management and planning practices.

HEALTH POLICY & MANAGEMENT

Name: Jonathan Modest

Practicum Site: Children's Hospital Boston– Pediatric Physicians' Organization

Location: Boston, MA

Title: Summer Intern Program Manager

Introduction: Pediatric Physicians' Organization at Children's (PPOC) is an Independent Practice Association (IPA) made up of more than 200 pediatricians in 75 primary care practices throughout Eastern Massachusetts. Administrative offices for PPOC are located in Brookline, MA. As a Senior Quality Improvement Consultant with PPOC for the last three years, I have worked closely with member practices to help improve care delivery processes and workflows. This practicum extended my role in the organization and introduced me to skills associated with direct development of an internal program, program management and management of staff.

Methods: Despite an organization-wide dedication to education and workloads that support the need for seasonal help, PPOC has never employed summer interns. I worked directly with the Medical Director of PPOC, in conjunction with the Director of Quality Improvement to develop an intern program and curriculum in Quality Improvement. I was tasked with developing a job description and on-boarding process for the summer interns, in addition to the development of job performance documentation and educational curriculums, which touch upon topics in quality improvement, health policy, and practice operations. Lastly, I directly managed and mentored the summer interns during their time with PPOC.

Results/Outcomes: This project was incredibly successful in developing an intern program, inclusive of job description, orientation manuals, curriculum and management tools, that can be implemented in PPOC repeatedly and in a standard manner for years to come.

Name: Lesley Nguyen

Practicum Site: Shire HGT

Location: Lexington, MA

Title: Clinical Trials Coordinator/Intern

Introduction: Lysosomal Storage Diseases (LSD) are rare inherited disorders that result from dysfunctional lysosomes and affect mostly children. Populations with LSD often lack particular enzymes that are normally responsible for breaking down sugars, lipids, or proteins. This malfunction leads to abnormal accumulation of products within various cells, which translates into developmental/cognitive/movement related difficulties and early death for populations with LSD. Shire HGT focuses a branch of its R&D efforts on developing treatments for diseases in the LSD class, which are Enzyme Replacement Therapies (ERT) for conditions such as Hunter Syndrome, Sanfilippo A/B, and Metachromatic Leukodystrophy (MLD). My purpose in this practicum was to assist Shire HGT's Clinical Operations department in coordination of six different LSD-related clinical trial studies. Successful management of these studies could lead to FDA approval of Shire's treatments and ultimately put new drugs on the market.

Methods: My study start-up activities included making IRB submissions and collecting site regulatory documents. To support the progression of studies, I created trackers for drug shipments and vendor invoices. I also made a slide deck summarizing neurodevelopmental assessments and reviewed site Informed Consent Forms. Lastly, I reviewed and restructured the Trial Master File of a completed study.

Results/Outcomes: All study management activities, no matter how seemingly menial, progress the clinical trial. If Shire's ERTs are proven to be safe and effective in clinical trials, children with life-altering conditions such as Hunter Syndrome or Sanfilippo could live longer, more normal lives with the approved treatment.

Name: Emily Olson

Practicum Site: Covidien- Diversity and Inclusion Center of Excellence

Location: Mansfield, MA

Title: Diversity & Inclusion Intern at Covidien

Introduction: This Diversity and Inclusion (D&I) Analyst practicum at Covidien provided research and analytical support to the D&I Center of Excellence regarding best practice D&I initiatives and assisted in gathering benchmarking material to aid in creating programs to augment the short and long-term D&I strategy. As a \$12 billion global healthcare products leader, Covidien stands to gain a competitive business advantage by attracting, developing and engaging a diverse workforce representative of its global customer base.

Methods: Research and review of leading Diversity sites such as DiversityInc., Working Mother, and Diversity Best Practices created benchmarking methods in which Covidien was compared to other leading healthcare companies. PeopleSoft and Covidien analytics software were used to gather and sort Covidien human capital data. This data paired with current Covidien programs was analyzed using the best practice research and employee engagement survey to identify gaps, areas of improvement and successful measures and programs in place at Covidien.

Results/Outcomes: Though the human capital results are confidential, several corporate programs were initiated or enhanced due to this research. Higher recruitment at historically black colleges and universities, greater emphasis on development of women engineers and women's leadership programs, implementation of cross-cultural sponsorship/mentoring with, and an expanded D&I budget for fiscal year 13 were all results of this practicum.

HEALTH POLICY & MANAGEMENT

Name: Melissa Rombaoa

Practicum Site: Children's Hospital Boston- Program for Patient Safety and Quality

Location: Boston, MA

Title: Quality Improvement through Patient & Family Centered Care

Introduction: ImproveCareNow (ICN) is a national quality improvement collaborative of gastroenterology care centers that seeks to improve the care of children with Inflammatory Bowel Disease (IBD). In addition to clinical QI, the ICN team at Boston Children's Hospital is working toward improving patient and family centered care. The goal of patient and family centered care is to create working relationships between families and health care providers to jointly find ways to plan, deliver, and evaluate health care needs. My practicum is centered on producing a patient-family engagement plan specific to the IBD Center at BCH.

Methods: My role is to create a satisfaction/suggestion survey and identify a variety of mechanisms to gather feedback from patients. I am also developing the plan and materials required to conduct parent focus groups and to establish the IBD Center's own Parent Advisory Council. Steps to completing these tasks include conducting research on patient centered care, and consulting with BCH social workers, representatives from the BCH Center for Families, and members of the national ICN collaborative.

Results/Outcomes: Patient and family centered care is an essential aspect to providing high quality care. A plan for increasing patient engagement on multiple levels will be ready to implement and integrate into the IBD Center's workflow. Families who participate in these activities will have the opportunity to make a tremendous positive impact on the care provided at Boston Children's Hospital.

Name: Sophia Thornton

Practicum Site: Boston Medical Center- Cancer Center

Location: Boston, MA

Title: Process Improvement Intern in the Mammography Department

Introduction: In order to comply with new regulations for all those who enter into an Alternative Quality Contract (AQC) with Blue Cross Blue Shield of Massachusetts (BCBS) the organization is required to meet very particular quality metrics. BMC and seven other community health clinics (CHC) have jointly entered a contract with BCBS and have financial ramifications for not meeting the metrics outlined in the AQC. One such metric is 81 percent of women between 40 and 70 must have annual mammograms. My practicum was to work with Dorchester House, one of the CHCs, to improve the screening level up from the mid-70s level they had been reporting in preceding months.

Methods: I'm working with a team of primary care providers from the adult and family medicine teams to 1) define the current process for identifying overdue patients 2) assess access barriers using a patient questionnaire tool I developed 3) outline a new procedure to better capture due and overdue patients.

Results/Outcomes: a systemized method for preventative care letters was created to remind patients when they are overdue for appointments (mammography, Pap smears, and colorectal). The practicum will conclude with a presentation of my recommendations and an accompanying set of standard operating procedures (SOPs) for all positions concerned. Finally, there is potential to use the same set of SOPs for other appointment types.

Name: Sofia Walton

Practicum Site: Dana Farber Cancer Institute

Location: Boston, MA

Title: Pediatric Patient Flow

Introduction: This practicum is part of an ongoing process improvement project focused on the Pediatric Jimmy Fund Clinic. This project started in October 2010 and has created a number of ongoing initiatives that help decrease the wait time for patients and maintain the high level, safe care providers give their patients.

Methods: Current data was captured by several weeks of in-clinic observations. Through these observations analyses were made on the current state of room utilization and patient flow. Using LEAN methodology, front-line staff met to brainstorm potential solutions to decrease patient wait times from check in to completion of blood draw. From those solutions, 3 initiatives were selected to implement. Through weekly meetings with Pediatric Leadership the current process flow was analyzed and Leadership was updated on the projects progress.

Results/Outcomes: The outcomes desired from this project is to increase capacity to perform blood draws by 33%, and decrease wait time from check-in to completion of blood draw by 33%. To this date blood draw room capacity has increased from 2 portals to 3 portals. Leadership has agreed to increase blood draw appointment times to decrease patient wait times. The newly designed schedules of blood draws will go through the implementation stage in the next few weeks. Six months post implementation reports will be run to ensure the initiatives were successful in improving patient flow.

INTERNATIONAL HEALTH

Name: Sandrine Batonga Yanga
Practicum Site: St. Boniface Hospital-Haiti
Location: Randolph, MA
Title: Fighting Malnutrition in Fond des Blancs, Haiti

Introduction: St. Boniface Haiti Foundation (SBHF) is located in Fond des Blancs, Haiti, a desperately poor rural region 70 miles southwest of Port-au-Prince. In addition to education and community development programs, the foundation also sponsors St. Boniface Hospital. SBHF's catchment area is vulnerable to malnutrition due to dire poverty, insufficient crop yields, inadequate children feeding practices and lack of access to basic health and sanitation services. On August 2011, in partnership with UNICEF, SBHF launched a 15-month nutrition program aimed at increasing access to and follow-up for nutritional care for malnourished children and underweight pregnant and lactating women.

Methods: In July 2012, I conducted a chart review of the 15 severely malnourished children hospitalized from October 2011 to April 2012 in the Nutritional Stabilization Unit of the hospital (USN). My duties consisted of assessing their files for completeness and conformity to the Ministry of Public Health and Population (MSPP) recording guidelines. In August, I performed home visits to moderately malnourished children who abandoned the program to determine factors justifying their absences. Additionally, I participated in all the nutrition program's activities including mobile clinics and community health workers trainings.

Results/Outcomes: The memorandum on the USN files evaluation that I prepared addressed recommendations to help nurses fill in its totality the MSPP therapeutic form (a key form in the USN charts consistently left incomplete). Recommendations also focused on ways to improve the over 300-prompt form to make it easier to use. Transportation affordability and relocation were the main reasons for abandonment.

Name: Clelia Beltrame
Practicum Site: Francisco Beltrao Health Department
Location: Parana, Brazil
Title: Research Assistant and Substance Abuse Specialist/Consultant

Introduction: The first national drug policy came into effect in Brazil in 1998 and the movement towards deinstitutionalization, treatment, and prevention of substance abuse has been a challenging process nationwide. In 2011 and 2012, new policies and regulations were passed to promote the creation and expansion of services to people with substance abuse issues within the Unified Health System (SUS, Sistema Unico de Saude).

Methods: From February 2012 until May 2012, I conducted a literature search on substance abuse laws and policies as well as more recent federal financial incentives pertaining to substance abuse services in Brazil. I also worked as a substance abuse specialist within the public health department in Francisco Beltrao, Parana, Brazil, and developed a presentation to upgrade knowledge about current state-of-the-art of substance abuse theory and treatment.

Results/Outcomes: Over thirty health professionals were educated on new substance abuse policies and regulations during the months of April and May 2012. Discussions on how new federal financial incentives can help the implementation and enhancement of substance abuse programs locally and regionally, are currently under discussion among health professionals, health representatives, and city officials. The presentation on substance abuse will be used as a part of the trainings process for public health agents working in Francisco Beltrao, Parana, Brazil.

Name: Benvy Caldwell
Practicum Site: Kissito Healthcare International
Location: Roanoke, Virginia
Title: Clinical Engineering Consultant

Introduction: Kissito Healthcare International is a US based NGO that partners with government run health facilities throughout Ethiopia and Uganda. Their public private partnerships aim to increase local capacity by providing inputs of essential biomedical equipment and human resources. Part of their approach is to respond to the chronic mismatch between donations sent from the developed world with local needs, to reduce the rooms full of unusable medical equipment scattered throughout the developing world.

Methods: For two months during the spring of 2012, I worked as a clinical engineering consultant at five of Kissito's facilities in Ethiopia and Uganda. At each facility, I performed clinical assessments identifying essential equipment each facility lacked and generating recommendations for future procurements. Two facilities were new construction projects requiring each room to be specifically designated with a clinical function using clean blueprints. In addition to these evaluations, I used basic tools and local supplies to install and repair broken equipment including an ultrasound machine, blood pressure cuffs, an autoclave, and a hemoglobinometer and, when possible, used the opportunity to educate local staff on how to upkeep and repair equipment to reduce its downtime.

Results/Outcomes: The clinical evaluations advised on realistic health service packages for each facility based on considerations of location, staffing, and financial inputs. A typical procurement report included hundreds of recommended items ranging from pulse oximeters to infant radiant warmers. Kissito has submitted the five assessments to a third organization that will supply and ship the recommended equipment to each of the facilities.

INTERNATIONAL HEALTH

Name: Katharine Collet
Practicum Site: Maison de Naissance (MN)
Location: Leawood, KA
Title: Haitian Birthing Center Intern

Introduction: MN is a rural Haitian birthing clinic. The center offers a wide range of services, including prenatal/postnatal care for women, HIV testing/treatment, and immunization/growth charting for infants. MN estimates that 66% of women that attend prenatal visits deliver at the facility. The purpose of this practicum was to gain a better understanding of where the patient population delivers and why that location is chosen.

Methods: 1) Conducted literature review; 2) Formulated pre and post partum qualitative interview template; 3) Completed and analyzed data from pre-partum and post partum interviews; 4) Conducted focus group on culture of childbirth; and 5) Produced barrier analysis report, with relevant recommendations.

Results/Outcomes: Of the pre-partum interview participants, 91% of the women planned to deliver in a health facility. Of the 59.3% reporting potential barriers, transportation, heavy rains/ flooding, insufficient time, and not being the ultimate decision maker were cited as the primary reasons for being unable to carry out their plan. Ultimately, 78.5% of women available for follow-up obtained an institutional delivery. The primary barriers to institutional delivery were lack of knowledge of the signs, symptoms, and severity of labor, and delays in seeking care. Supported by the cultural preference for and agreement among women interviewed on barriers to institutional delivery, the results indicate that women seeking prenatal care at MN are able to overcome barriers to institutional delivery at higher rates than originally thought. However, it has been noted that selection bias hindered the generalizability of the results.

Name: Nicole Cormier
Practicum Site: Massachusetts Department of Public Health- Local Board of Health Summer Internships
Location: Monson, Wilbraham and Hampden, MA
Title: Emergency Preparedness Intern

Introduction: For my practicum I worked for the Boards of Health in Monson, Wilbraham, and Hampden, MA to update each town's emergency preparedness plan. All these towns are in Hampden County, which were devastated by several natural disasters in 2011 (tornado, microburst, tropical storm, two snowstorms). Damage from these disasters destroyed Monson's Town Hall and forced towns to set up housing shelters on several occasions. While communities came together to help residents, the lack of an effective and updated emergency plan put tremendous pressure on shelter management staff. Inadequate response to these disasters demonstrated the need for clear, complete emergency plans for each town in Hampden County that would protect public safety and maximize scarce resources.

Methods: I initiated discussions at the local and regional level to determine the information needed by each town during an emergency to create an outline for working binders for public health responders to use during an emergency. Gaps in their Strategic National Stockpile (SNS) Plan and Comprehensive Emergency Management Plan (CEMP) were identified by the regional emergency planner, and solutions were added to their working binders.

Results/Outcomes: At the end of my practicum each town had an updated Continuity of Operations Plan, designed to be quick, all-hazards reference guides for emergency planners during an emergency, supplemental to the SNS and CEMP plans. The main points of the plan included emergency procedures; inventory and location of equipment; Emergency Dispensing Site plans (with alternates); and contact lists. These plans have been disseminated to parties involved in each town. The binders will be utilized during the next emergency, and they satisfy State and Federal requirements for a comprehensive disaster plan.

Name: Cheryl DuMond
Practicum Site: Amos Health and Hope
Location: Nicaragua
Title: Community Doula Project Assistant

AMOS Health and Hope is a community-based primary healthcare organization working to improve health and facilitate community organization in rural Nicaraguan communities. I worked with AMOS to gather information on women's experiences, beliefs, and needs related to birth and infant feeding practices, which will then be used to tailor new community doula programs to actual issues rural women face. Through these programs, AMOS aims to improve maternal and child health through safer births and healthier infant feeding.

INTERNATIONAL HEALTH

Name: Sara Gille
Practicum Site: Chelsea Collaborative
Location: Chelsea, MA
Title: ChelseaSTAR Intern

Introduction: The ChelseaSTAR [Science to Achieve Results, funded by the Environmental Protection Agency] Project is the result of a partnership between The Chelsea Collaborative and researchers at Boston University School of Public Health. The scientific goals are to develop new methods for learning about the combined effect of social stress and environmental exposures on human health.

Methods: Data collection for the study includes interviewing up to 500 people who live in the City of Chelsea, age 18 and older, and who presently live in one of five census tracts in Chelsea, and who have lived in Chelsea at least six months. Each person is asked approximately 180 questions about their experience living in Chelsea, health, and about sources of stress in their lives. Each interview lasts approximately one hour to an hour and a half, and is conducted in Spanish or English. Recruitment is primarily done door to door, with interviews completed in the participant's home or at the Chelsea Collaborative.

Results/Outcomes: Recruitment for the study began in December 2011 and is ongoing. Currently, over 160 interviews have been conducted. The results of the interviews will be analyzed to see how the social and physical environment affects the health of Chelsea residents. Eventually the results will be published as a report and disseminated back to the community.

Name: Katia Gomez-Chang
Practicum Site: Educate2Envision International
Location: Honduras
Title: Youth Health Conference Project Manager

Introduction: Honduras suffers from the highest adolescent pregnancy rate in Central America coupled with one of the youngest populations with an average age of 21 and nearly 40% within the 0-14 age bracket. Educate2Envision International takes a unique approach in working to combat teen pregnancy by merging access to high school education with community-driven leadership projects in the poorest regions of the country. My practicum involved organizing the first youth health conference ever held in the municipality that combined reproductive health discussion with confidence-building exercises.

Methods: In collaboration with the Secretary of Education and the Ministry of Health, staff from both departments assisted in implementing a youth health conference for 3 different communities with a total number of approximately 60 participants. The conference lasted 4 days and tackled issues ranging from reproductive health to healthy relationships to self-esteem. The ultimate goal was to successfully train groups of participants to reproduce the the conference in a modified version to their local communities.

Results/Outcomes: During the finale of the conference each group of students, from their respective communities, collaborated to design a condensed conference curriculum to reteach the following week in their home towns. This part of the practicum was the most eye-opening and yielded the intended results. Though it can only be seen through a long-term trend analysis in teen pregnancy rates, the most immediate results proved optimistic and reinforced the power of community-level engagement for any type of public health intervention.

Name: Aria Grabowski
Practicum Site: Vestergaard Frandsen West Africa Ltd.
Location: Labone, Ghana
Title: PLHIV Carepack Model Intern

Introduction: Vestergaard Frandsen produces a carepack for people living with HIV/AIDS (PLHIV) consisting of a Long Lasting Insecticide Net (LLIN) and a water filter to PLHIV. The aim of the practicum was to generate a flexible model that could be used for different regions to assess the health and financial impact of distributing a carepack

Methods: The data collected to input into our model is Ghana specific and came from online research, literature reviews, and in-person interviews with program implementers. The variables that drive our model are the incidence and case fatality rates of diarrhea and malaria; the product, distribution, and program implementation costs; the length of time that the drop in CD4 count can be delayed due to PLHIV using a LLIN and water filter; and the increased transmission of HIV due to PLHIV not taking Anti-Retroviral Therapy because their CD4 counts are above 350 for a longer period of time. The model was then run both with delayed disease progression for HIV/AIDS and without delayed disease progression and increased transmission.

Conclusion: The use of carepack averts disease episodes and death for both PLHIV and other members of the households benefitting from the intervention. The economic and health impact of the product depends on the incidence of disease, the case-fatality rate, and what distribution channels are used. For Ghana however, it appears that carepack has a net savings due to the treatment costs averted being greater than the product and program costs.

INTERNATIONAL HEALTH

Name: Christine Hara

Practicum Site: Vestergaard Frandsen West Africa Ltd.

Location: Labone, Ghana

Title: Public Health Consultant for Vestergaard Frandsen, Investigating the Health Impact and Cost Effectiveness of Providing Basic Care Packs (BCPs) to People Living with HIV (PLHIV) in Ghana

Introduction: Vestergaard Frandsen manufactures long lasting insecticide treated bed nets (LLINs) in addition to water filters for public health interventions. The company combines LLINs and water filters to create a basic care pack (BCP), called CarePack®. In order to assess the effectiveness of such an intervention, my colleagues and I designed a cost-effectiveness and health impact Excel model using Ghana-specific data. The malleable model addresses the cost and health impact of averting episodes of both malaria and diarrhea in people living with HIV (PLHIVs) by providing them with a BCP.

Methods: Key inputs and parameters were identified by performing literature reviews and in-person interviews with key stakeholders. Ghana-specific data relating to the PLHIV and general population, distribution costs for BCPs, the malaria epidemic and diarrheal disease were collected. The Excel model was designed by reviewing existing models and modifying the equations when necessary. Equations to calculate distribution costs, DALYs averted, costs averted, episodes of fatal and non-fatal cases for malaria and diarrhea averted, delayed disease progression and increased HIV transmission were incorporated into the model.

Results/Outcomes: The final product is an interactive model that allows users to input country-specific and target population data in addition to choosing the type of safe water intervention they want to assess. Once data is entered, the model automatically calculates the summarized cost and health impact. This model allows policy makers, implementers and healthcare providers the ability to quickly analyze the cost effectiveness and health impact of distributing BCPs to PLHIVs.

Name: Amanda Huffman

Practicum Site: Swatsi Health Resource Center

Location: Karnataka, India

Title: Public Health Intern, Technical Support

Introduction: Swasti is a health resource centre working in many areas across India providing technical support and project development to corporations, NGOs, and the government. Swasti partners with a number of organisations as consultants. I provided technical support on consultations within Swasti.

Methods: The tasks completed during the practicum were diverse and numerous. I focused on capacity building for staff and public health professionals on Water, Sanitation, and Hygiene and wrote a document informing the Indian government on Universal Health Care challenges and opportunities within India. Other activities completed include: proposal support, budgets for external organisations, framework design for a hospital assessment, and a family development assessment tool for a new project Swasti is implementing.

Results/Outcomes: Each of these activities was designed to improve the health, livelihoods and education levels primarily for India's rural population. Two activities will be most influential: 1) a proposal and framework design to provide the organisation with the financial backing to assess and reconfigure a large government hospital to improve its services, and 2) a comprehensive knowledge capsule to improve Universal Health Care policies in Kerala. Both of these projects are in progress and will begin implementation soon. Each activity used concepts learned in classes and allowed me to improve my skill set in technical support as a consultant.

Name: Natalie Jain

Practicum Site: Boston Medical Center- Department of Pediatrics

Location: Boston, MA

Title: Health and Wellness Education Intern

Introduction: The bWell Center of the BMC Department of Pediatrics has a unique patient-centric approach in improving the health and wellness of patients by addressing the support gap in healthcare delivery through collaboration of outreach services, partnerships, and education. The purpose of this practicum was to aid the bWell Center's objectives of health promotion and education through the development of comprehensive information packets and resource guides for various health related topics. The goal of these packets is to empower patients and their families with extra healthcare support through provision of knowledge and resources.

Methods: Through interaction with BMC Pediatric Patients and meeting with experts in the areas of my health related topics, I worked 1) to synthesize information in a comprehensive information packet focusing on ADHD, Diabetes, Hypertension, Finance, and Food Assistance 2) to develop culturally competent resources appropriate for the patient demographic 3) to foster in-patient relations for health promotion/education and information exchange by using various resources, media, and interactive activities 4) to increase quality and satisfaction of healthcare services.

Results/Outcomes: The development of a comprehensive information packet will be used to provide support to patients and their families and address their gaps in knowledge. The bWell Center will use these guides not only to enhance the level of care for the patient, but also to solidify a more meaningful encounter with patients in helping them understand their medical needs and the services available to increase their treatment outcomes. Additional resource guides can be created based on these models.

INTERNATIONAL HEALTH

Name: Kelley Journey
Practicum Site: Boston Medical Center- Department of Obstetrics and Gynecology
Location: Boston, MA
Title: Research Assistant, Centering Pregnancy

Introduction: Centering Pregnancy is an innovative model of prenatal care that offered in groups of 8-10 women over ten 2-hour sessions. Centering Health Care is at the forefront of the health care redesign as suggested by the Institute of Medicine. It provides culturally competent care with focus on health assessment, education, and support through unrushed time with providers. The Centering Model has been shown to lower rates of preterm birth, especially in populations with typically adverse birth outcomes.

Methods: As a research assistant I tracked recruitment and collected data for the Centering Pregnancy groups at Boston Medical Center. I followed weekly enrollment and group attendance for the groups established by due date and satisfaction of care as were outcomes established to follow by the current grant. I also prepared an IRB proposal for a data analysis comparing birth outcomes of CenteringPregnancy patients with women who received traditional prenatal care at BMC.

Results/Outcomes: The groups of women are followed for attendance and throughout their care they are asked to complete 3 surveys at sessions 1, 6, and 10. The results of attendance and satisfaction for internal use. The IRB application to further analyze primary outcomes of birthweight and gestational age is in progress. The future analysis will also look at social support and health behaviors in comparison to those who received individual care.

Name: Jadie Kim
Practicum Site: Massachusetts Department of Public Health—Local Board of Health Summer Internships
Location: Acton, MA
Title: Emergency Preparedness/Needs Assessment Internship

Introduction: The Medical Reserve Corps (MRC) is a federally funded community-based emergency preparedness organization that was created in response to 9/11 attack in an attempt to credential and train volunteers. The Acton MRC, supervised by their Health Department, needed a strategy for community outreach that addresses the recruitment process of new MRC volunteers, evaluates accuracy of existing data, and employs the MRC deployment and leadership model based on Incident Command System.

Methods: I emailed existing members to verify their information and confirm their active status. Follow up letters and ultimately phone calls were made to those who did not respond. To recruit new members, we hosted an information session. I arranged the logistics of the session, sent invitations to 2000 residents, and posted announcements on town website, a local TV station, and electric billboards. Finally, I adopted the MRC deployment and leadership models to the local setting using standard MRC procedure as published in the national MRC website and in cooperation with the regional MRC coordinator.

Results/Outcomes: Out of 110 emails and 20 letters, I got 32 replies. Follow-up calls are being continued. During the information session, five out of eight people showed interest in volunteering. Deployment and leadership models were distributed to the members. The challenges associated with this project were the timing of recruitment and optimal communication strategies. Attracting the community to take interest in the MRC during non-emergency time was a difficult task. Recommendations on community outreach strategies will be provided to the Health Department.

Name: Sonia Kwon
Practicum Site: Nutrition and Education International- Soy Nutrition
Location: Pasadena, CA
Title: Project Coordinator

Introduction: Nutrition and Education International (NEI) is an international nonprofit organization based in California dedicated to reducing malnutrition in Afghanistan through the production and consumption of soybeans as a new and alternative crop. With local staff, I developed the monitoring and evaluation (M&E) capacity of NEI, implemented a supplementary soy-based feeding program at the Khair Khana School (Kabul, Afghanistan), and designed a prospective cohort study.

Methods: I worked with NEI staff in California and Kabul to: 1) implement a soy feeding program for 500 1st - 3rd grade students, 2) develop M&E protocol, 3) orient and train staff in Kabul, 4) review and develop M&E best practices and standard operating procedures with my Field Supervisor, and 5) design a controlled health impact study to monitor progress and efficacy.

Results/Outcome: Under the direction of NEI's president, I designed a prospective cohort study to measure the health impact of the feeding program on elementary school students (submitted to the Ministry of Public Health Institutional Review Board), implemented the feeding program, and reinforced the social groundwork necessary for implementation, participation, and effective, ongoing measurement. The resultant study will incorporate my contributions with the ultimate goal of making a case for the incorporation of soy-based nutrition to combat malnutrition among children. Challenges included, but were not limited to, a constantly shifting socio-political environment, equipment calibration and quality, a variety of communicative and social barriers, and limitations in regard to funding, staffing potential and buffering capacity.

INTERNATIONAL HEALTH

Name: Katherine Malcom

Practicum Site: American Lung Association– New England Branch

Location: Waltham, MA

Title: Massachusetts Thoracic Annual Meeting/Public Policy Intern

Introduction: Over 16 weeks in Spring/Summer 2012, I interned for the New England branch of the American Lung Association. The American Lung Association is an organization committed to fighting lung disease by promoting healthy air quality. The purpose of this practicum was to support the health promotion and public policies of the organization.

Methods: I worked with the Regional Director of the Medical and Scientific Branch as well as the Director of Health Promotion and Public Policy: 1.) to organize the Massachusetts Thoracic Annual Meeting and do the post-conference analysis and write-up; 2.) to create asthma fact sheets based on data from the Behavioral Risk Factor Surveillance System for towns in the Massachusetts State Senate and House Districts; and 3.) to provide general support of the health promotion and public policy activities.

Results/Outcomes: The conference brought together 200 plus attendees from a diverse community of interdisciplinary specialties across pulmonary care. The day helped facilitate further discussion among the attendees, allowing health care professions to discuss the daily challenges of pulmonary health. Surveys I analyzed from the conference, as well as the post-conference write-up indicated that attendees found the day helpful. The asthma fact sheets contained information from towns in the 40 State Senate Districts and 160 House Districts. They created talking points to help direct legislation where problems are and where financial means and measures might be most appropriate.

Name: Karen Manikowski

Practicum Site: Boston University- Center for Global Health and Development

Location: Southern Province, Zambia

Title: Mobile Health Technology Intern

Introduction: In Zambia, 1 in 38 women die in childbirth annually, and 14% of the population lives with HIV/AIDS according to UNICEF statistics. Mobile health technology, dubbed mHealth, is an innovative method used to increase access to critical life saving care and reduce loss-to-follow up. My internship with The Center for Global Health and Development focused on implementing, monitoring and assessing the impact of two mHealth projects aimed at improving health outcomes for women, infants and children in the rural Southern Province of Zambia.

Methods: The shared objective of Project Mwana and Saving Mothers, Giving Life is sending and receiving health-related messages on mobile phones. From January to March 2012 I supported Program Mwana by conducting technical support visits and performed project management through a web-based platform. From March to August 2012 my primary of responsibilities included recruitment and training initiatives at nine rural health facilities, and to foster relationships with the Ministry of Health and key stakeholders for the implementation of Saving Mothers, Giving Life.

Results/Outcomes: A total of 204 community-based agents and 62 health facility staff were trained in both systems at 41 rural health facilities from January to August. Nine data clerks were recruited and trained from June to August 2012. Scale-up of Program Mwana is currently underway at 31 additional rural health facilities in Zambia to be completed by December 2012. Saving Mothers, Giving Life system implementation began in August 2012, thus initial data finding will not be available until quarter four of 2012.

Name: Tasha Morrison

Practicum Site: Boston Medical Center- Cancer Center

Location: Boston, MA

Title: Breast Cancer Compliance Study

Introduction: Between 2004 and 2008, BMC has found that they have failed to consistently comply with guidelines for accreditation from American College of Surgeons Commission on Cancer for their breast cancer patients. Non-compliance with recommendations is related to the timeline for treatment and delays in delivery of treatment. There are three metrics for breast cancer, and at least 90 percent of the patients have to be considered compliant with each metric. These metrics include the start of radiation therapy within one year after diagnosis, the start of chemotherapy 120 days after diagnosis, and the start of hormone therapy within one year after diagnosis. In collaboration with cancer center clinicians and staff, data was gathered on 70 breast cancer patients. Next, we determined which pitfalls make patients noncompliant, catch and follow-up on current patients who still have a chance of becoming compliant, and develop strategies to reduce non-compliance.

Methods: Logician, BMC's electronic medical records system, was used to determine demographics, dates of mammography, biopsy, surgery, chemotherapy, radiation and/or hormone therapy, breast cancer pathology, and any barriers related to receiving care.

Results/Outcomes: 57.5 percent were compliant for chemotherapy, 84.8 percent were compliant for radiation, and 82.5 percent were compliant for hormone therapy. Barriers for noncompliance were both patient-related and operations related. Taken together, while BMC cannot control patient-related factors, they can improve their operational performance to minimize noncompliance.

INTERNATIONAL HEALTH

Name: Denis Mzaga

Practicum Site: Boston Medical Center- Department of Pediatrics - bWell Center

Location: Boston, MA

Title: Creating Resource Guide for Asthma and Allergies

Introduction: The bWell center is a health care start-up that aims to provide an innovative approach to educate and support families of Boston Medical Center's Pediatrics Department. The bWell Center's primary goal is to fill the support gap that can exist from shorted doctor visits. To improve the health and wellness of Boston Medical Center Pediatric patients, the bWell center decided to create a resource guide for the most prevalent chronic conditions. In particular worked in asthma and allergies.

Methods: I was part of a team made of five interns to create a wellness guide. In order to complete this project, I had to: 1) Consult asthma and Allergies specialists several times; 2) Interview parents and children to hear their views; 3) Discuss with other team members after every two weeks under our supervisor; and 4) Use the readability score website to assess my writing to make sure the contents are understood by the targeted population.

Results/Outcomes: By the end of my practicum, I created four wellness guides for asthma and allergies, which are very educational, easy to read, and include all concerns from patients and specialists. I created guides for both children suffering from the conditions and parents who may have children with asthma or allergies.

Name: Anne Peruski

Practicum Site: Massachusetts Department of Public Health- Bureau of Infectious Disease Prevention, Response and Services

Location: Jamaica Plain, MA

Title: Meningococcal Disease Epidemiological Study

Introduction: The epidemiology of invasive meningococcal disease (IMD) has changed in Massachusetts since 1988, characterized by a marked reduction in incidence. Potential correlates of this decrease were explored. First, Haemophilus influenzae type b (Hib) conjugate vaccine was introduced in 1987, the pneumococcal conjugate vaccine (PCV7) was introduced in 2000, the Neisseria meningitidis polysaccharide vaccine (MPSV4) was promoted for college students in 1997 and the N. meningitidis conjugate vaccine (MCV4) was introduced in 2005.

Methods: Data for patients reported to the Massachusetts Department of Public Health (MDPH) with IMD from 1988-2011 were downloaded from Massachusetts virtual epidemiologic network (MAVEN) and personal identifiers were removed. Metrics including demographics, incidence, serotype distribution, case fatality rates and seasonality were calculated using the open-source software package, R (v2.14.0).

Results/Outcomes: After the introduction of the Hib conjugate vaccine for infants in 1990 the incidence of IMD decreased 51% but incidence in all other age groups remained stable. Recommendation of and promotion for the MPSV4 vaccine was followed by a decrease in IMD in the 10-24 year age group and introduction of MCV4 vaccination was followed by a decrease in IMD in all age groups. The decrease in incidence of IMD in Massachusetts was temporally correlated with the introduction of Hib conjugate vaccine early in the time period examined, a biologic explanation for an effect is tempting, but not yet supported. The change in incidence in the latter half of the time period under examination is plausibly explained by changes in meningococcal vaccination.

Name: Emily Poles

Practicum Site: Boston University- Center for Global Health and Development

Location: Zambia

Title: Zambia Chlorhexidine Application Trial (ZamCAT) Technical Intern

Introduction: The Zambia Chlorhexidine Application Trial (ZamCAT) is a community-based trial being undertaken by Boston University's Center for Global Health and Development in conjunction with the Zambia Center for Applied Research in Health and Development (ZCHARHD). The study seeks to determine the efficacy of a 4% chlorhexidine application to the newborn umbilical cord in reducing under-28-day infant mortality compared to current Ministry of Health and World Health Organization-approved standards for dry cord care.

Methods: During my six months with ZamCAT, my primary focus was supporting the field monitors and data management team through the performance of administrative duties, data entry, and data management tasks in order to facilitate the meeting of the study's Data & Safety Monitoring Board (DSMB) deadline in June. Secondary activities included assisting with the final stages of the health facilities/health worker sub-study surveys through data collection and compilation and assisting the ZamCAT training team with workshops and health worker orientation sessions.

Results/Outcomes: Through the combined efforts of myself and the entire ZamCAT data team, the study was able to reach the necessary DSMB targets of 50% enrollment and 14,000 completed, cleaned participant data sets by the mandatory June deadline. As the study moves forward, the data management team will utilize the improved back-filing system developed during my tenure, which will hopefully reduce the accumulation of unfiled, scanned data sets, thereby reducing the overall workload of the data team.

INTERNATIONAL HEALTH

Name: Allison Schmale

Practicum Site: Catholic Relief Services

Location: Madagascar

Title: Health and Nutrition Intern for the SALOHI (Strengthening and Accessing Livelihood Opportunities for Household Impact) Food Assistance Program

Introduction: Madagascar has the fifth highest rate of stunting in the world and in 2010 35% of deaths in children under five years was attributed to malnutrition. Malnutrition and stunting contribute to impaired brain development, decreased work capacity, compromised immune function, and perpetuates the poverty cycle in developing countries. In 2008 ADRA, CARE, CRS, and Land O' Lakes began the Strengthening and Accessing Livelihood Opportunities for Household Impact (SALOHI) to address the food security and malnutrition obstacles Madagascar faces. The Positive Deviance/Hearth (PD/Hearth) model was implemented to reduce malnutrition and stunting in children under 5. This program educates mothers on proper child nutrition using local, community supported behaviors.

Methods: During my 8 weeks in Madagascar, I worked with the SALOHI team and identified 3 regions to compare PD/Hearth programs. We gathered qualitative information through interviews, discussions, and observations to evaluate each program and identify problems. Weight data for each Hearth session was gathered for 9 villages and analyzed to detect weight gain.

Results/Outcomes: Overall we talked to 10 field agents and community health workers in 5 different villages to gather information on the PD/Hearth projects. Our preliminary analysis identified lack of knowledge and understanding of the PD/Hearth program resulted in incorrect implementation of the programs in villages. Weight analysis indicated that after Hearth sessions children had low weights when compared to standards. Cultural taboos, poor communication, and lack of food also contributed to unsuccessful programs. As a result recommendations were developed to strengthen the program those areas.

Name: Shruti Sreepathi

Practicum Site: United Nations High Commissioner for Refugees, Geneva- Public Health/HIV Unit

Location: Geneva, Switzerland

Title: Analyzing the Burden of Non-Communicable Diseases in Refugee Camps in Kenya and Nepal In Relation to Africa and Asia

Introduction: The UNHCR has a large refugee public health database that houses information such as: refugee status, age, gender, types of diseases, and revisits made to the clinics across 15 countries. Much of the data needed to be organized in a systematized way to be relevant for country officers and bring attention to the burden of diseases among the refugee populations.

Methods: I analyzed the levels of non-communicable diseases among the refugee populations in Kenya in relation to Africa and Nepal in relation to Asia, since the data was robust. I was able to note the trends, identify gaps and provide recommendations on how to improve the gaps. I created a series of graphs both on a country and regional level that noted trends of the variables of interest, such as age, gender, etc. Furthermore, additional data was extrapolated for a partner organization interested in diseases among older persons.

Results/Outcomes: The graphs I created have been compiled into "Fact Sheets" and are in the process of being reviewed. Once these fact sheets are completed, they will be distributed to the country offices in Kenya and Nepal and a journal article will be written, which discusses the overall trends.

MATERNAL & CHILD HEALTH

Name: Fadhun Al-Beity

Practicum Site: Harlem Health Promotion Center- Mailman School of Public Health of Columbia University

Location: New York, NY

Title: Research Intern- Project SHARE (Support for Hypertension Awareness, Reduction and Education)

Introduction: Project SHARE (Support for Hypertension Awareness, Reduction and Education) is a behavioral and psychosocial intervention designed to develop and strengthen connections between consumers and health care resources and improve awareness and self-management of hypertension (HTN) through lifestyle modification. The project aims at reducing the disproportionate high burden of hypertension amongst communities of color and ethnic minorities in Northern Manhattan neighborhoods by combining web-based technology with community health worker (CHW) support.

Methods: The study randomized 450 hypertensive adults into three groups: a control group receiving “standard care”, self-directed learning group receiving internet-based resources, and a group combining self-directed learning with CHW guided-support. Enrollment started in October 2011; and participants are followed for one year. I worked with the project coordinator to analyze study trends and identify potential areas for strengthening recruitment and enrollment process. I designed, conducted, and analyzed key informant interviews for community partners and stakeholders; participated in screening and recruiting participants; modified data collection tools; and worked with project coordinator for completion of IRB renewal process

Results/Outcomes: The analysis of study trends identified gaps to be addressed such as language; few staff, suboptimal documentation process, constrained financial resources and social norms surrounding hypertension among the community members. Qualitative data collection from community members and public health stakeholders were used to put forward recommendations to ensure efficient and timely completion of the project.

Name: Charlotte Allard

Practicum Site: Planned Parenthood League of Massachusetts- Education Department Program

Location: Boston, MA

Title: Education Intern

Introduction: PPLM promotes sexual and reproductive health and freedom of choice by providing clinical services, education and advocacy across the state. As an education intern, I was provided opportunities within community education, internal training, and the health center.

Methods: Get Real: Comprehensive Sex Education that Works, PPLM’s middle and high school curricula, is provided in Boston Public Schools (BPS). BPS requires curricula to demonstrate coverage of the Health Education Frameworks, which spell out grade level skill and knowledge objectives. New frameworks were published requiring a reapplication. I familiarized myself with the frameworks and curricula and matched lessons with the covered objectives. PPLM plans to implement a peer education program. To prepare, I reviewed a needs assessment, researched for the literature review, and updated information about programs around Boston. For internal training I created and edited resources as well as prepared training materials. I also provided feedback on training design, presentation, and materials. Health center responsibilities involved educating patients on aftercare instructions, safety measures, and birth control methods. I collaborated with clinic staff to attend to patients’ emotional and physical needs following termination procedures while adhering to clinic protocols.

Results/Outcomes: The document I created with the BPS frameworks will be used to assist the reapplication process. The peer education research and updates will guide program planning. Ongoing program development and support are significant components of the internal training program and necessary for continued progress. Educating patients during this “teachable moment” post-abortion care plays a critical role in their current recovery and future reproductive health.

MATERNAL & CHILD HEALTH

Name: Laura Dustin

Practicum Site: Boston Public Health Commission, Start Strong Initiative

Location: Boston, MA

Title: Start Strong Intern

Introduction: Start Strong is the largest national initiative ever funded aiming to promote healthy relationships and prevent teen dating violence. Here in Boston, Start Strong peer leaders—high school teens—go into community centers and middle schools to teach 11-14 year olds about how to engage in a healthy relationship and how to prevent teen dating violence. Start Strong is based on the theory that youth relate and learn best from other peers. The program provides tools and education for peer leaders to feel comfortable talking about these topics with peers. Peer leaders also educate adults such as parents, caregivers, and teachers about ways to talk to teens about these important issues.

Methods: As an intern for Start Strong I worked directly with new and returning peer leaders during their six week summer training program. I collaborated with staff to develop, organize, and facilitate workshops on teen dating violence and other areas of professional development. My main responsibility was organization and facilitation of the third annual “Break Up Summit” where teen organizations from all over Boston came together for a one-day event to talk about break-ups and cheating. I also assisted peer leaders in the development of a PSA for the “Engaging Men and Boys” campaign.

Results/Outcomes: Start Strong aims to educate the youth of Boston about how to recognize and prevent teen dating violence and how to promote healthy relationships amongst their peers. A primary goal of Start Strong is to disseminate these messages through communities. Start Strong provides tools, resources, and tips on how to be an advocate of healthy relationships.

Name: Jolynn Henke

Practicum Site: Observant LLC

Location: Waltham, MA

Title: Healthcare Consulting Summer Intern

Introduction: Observant LLC is a strategic market research partner focused on serving clients from leading organizations in the pharmaceutical and biotechnology industries. They leverage consulting and research expertise to facilitate high-value, action-oriented, strategic marketing solutions.

Methods: I was able to assist Observant LLC in all stages of their market research model on a variety of qualitative and quantitative projects. The research model consists of a series of sequential steps including: study design and planning, recruitment, discussion guide/questionnaire design, qualitative and/or quantitative data collection, and analysis and reporting.

I worked on one unique quantitative study that used the expertise of market researchers as a tool to understand the epidemiology of non-HIV Sexually Transmitted Infections (STIs) strains of genital warts in South Africa via a prospective patient diary for healthcare professionals. The study also used innovative metrics to accurately assess the psychosocial burden of STIs and other HPV-related diseases in South Africa, including several disease specific quality of life questionnaires administered to patients with and without non-HIV STIs to determine HPV-related psychosocial impact.

Results/Outcomes: Clients are provided with final reports, which include key findings extracted from collected data as well as suggested marketing strategies. The objective for the international epidemiological study on STIs is to have elements of the final report presented at conferences as well as publication in peer-reviewed journals.

Name: Joanna Hull

Practicum Site: Boston Medical Center, Department of Pediatrics

Location: Boston, MA

Title: Research Assistant / Data Analyst

Introduction: Breastfeeding is associated with reduced population risk of obesity. One hypothesis suggests an effect modification between breastfeeding in infancy and healthier diets later in life. The goal of this Practicum was to determine whether type of infant feeding at 4 months is associated with meeting fruit and vegetable guidelines at age two.

Methods: For this longitudinal cohort study, we collected survey data by making monthly calls and yearly home visits, including 24hr diet recalls. To characterize the breastfeeding variable, we used the 4 month questionnaire which asks the mothers to self-categorize the infant feeding type into four groups: exclusively breastfed, mostly breastfed ($\geq 50\%$), mostly formula fed ($>50\%$), and only formula fed. Using SAS, statistical methods were ANOVA, simple linear regression, multiple linear regression, backwards regression and stepwise regression.

Results/Outcomes: Of 270 infants included, 38 were exclusively breastfed through 4 months. As far as meeting fruit guidelines, 28.95% of exclusively breastfed babies, 24.24% of mostly breastfed babies, 18.42% of mostly formula fed babies, and 17.24% of only formula-fed babies met fruit guidelines at 2yrs. As far as meeting vegetable guidelines, 18.42% of the exclusive breast-feeders, 10.61% of mostly breastfed babies, 10.53% of mostly formula fed babies, and only 5.75% of formula-fed babies met vegetable guidelines. There is a trend between increasing amounts of breast milk and increasing amounts of fruits and vegetables in their diet.

MATERNAL & CHILD HEALTH

Name: Emily Johnson

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

Location: Boston, MA

Title: Sexual Assault Survey Intern

Introduction: Sexual assault (SA) is a serious public health problem in Massachusetts, where an estimated 14.2% of women and 3.7% of men report having experienced SA in their lifetime. The Sexual Assault Prevention and Survivor Services program (SAPSS) at MDPH funds seventeen local rape crisis centers (RCCs) throughout the state, which provide both direct services and prevention programming. In 2011, MDPH performed a pre-test survey to assess RCCs' primary prevention capacity and activities; I was tasked with performing the 2012 post-test survey. This assessment provides important feedback to MDPH on progress and areas in need of improvement, and was also used to fulfill part of an application for Rape Prevention Education funding from the CDC.

Methods: To complete the survey, I: 1.) solicited input on any changes and additions to be made to the survey from members of the State Prevention Team, 2.) edited and posted the survey using SurveyMonkey software and 3.) analyzed the results and wrote a summary report.

Results/Outcomes: Compared to the pre-test, a greater proportion of prevention staff in Massachusetts reported receiving MDPH-sponsored training providing technical assistance for their evaluation activities. The results also displayed marked improvement in several other areas, including knowledge of key prevention theories and concepts, and program evaluation and data analysis skills. Deficits were also identified to better focus technical assistance efforts in the coming year; for example, while respondents displayed greater knowledge of prevention theory, there is still room for improvement in terms of cultural competence training and implementation of culturally-specific programming.

Name: Chonel LaPorte

Practicum Site: Maternal and Child Health Bureau- Graduate Student Internship Program (GSIP)

Location: Wyoming

Title: Children with Special Needs Report

Introduction: This practicum focused on creating a comprehensive report on children with special health care needs (CSHCN) in Wyoming in order to meet one of the goals of the Maternal and Family Health Needs Assessment for 2011-2015, a part of the required application for Title V federal funding for maternal and child health improvement. This report informs policy makers and public health professionals in Wyoming about the health and well-being of CSHCN in the state, and showcases data gaps. Previously, no comprehensive report on CSHCN had been completed in the state. Limited data is currently available on CSHCN in Wyoming.

Methods: I requested the data set from the 2009-2010 National Survey of Children with Special Health Care Needs from the Child and Adolescent Health Measurement Initiative. I compiled additional data from Children's Special Health, a Wyoming Department of Health program for CSHCN below 200% of the Federal Poverty Level. I used Microsoft Excel and Word to construct graphs and write a narrative for the report. SAS and SUDAAN software were used to complete a statistical analysis. A meeting was convened with Wyoming stakeholders (local hospital staff, members of the Department of Health, and CSHCN non-profit organizations) to present findings from the report. Data gaps were discussed, as well as uses of the report and future recommendations.

Results/Outcomes: The 70-page report will be used to further data collection on this topic and help the Wyoming Department of Health and others meet goals for the health and well-being of CSHCN in the state.

Name: Sophie Martin-Tsoupas

Practicum Site: Dorchester House Multi-Service Center

Location: Boston, MA

Title: Project Manager/Qualitative Data Analyst

Introduction: The Dorchester House Multi-Service Center (DHMSC) is a community-based health care center located in Dorchester, MA, one of Boston's most vulnerable communities. The overarching goal of DHMSC is to provide comprehensive, affordable services to their clients, many of whom live in poverty and come from different parts of the world. Accordingly, this practicum involved efforts to keep such clients informed and engaged in their care.

Methods: In line with this goal, I performed literature reviews and conducted interviews with a variety of DHMSC staff around the Patient-Centered Medical Home (PCMH) model of care, and participated in bi-weekly PCMH steering committee meetings. Using the information obtained, I subsequently developed patient education materials concerning this model, including a brochure and a waiting room slideshow. I actively obtained feedback from DHMSC staff and led a small focus group of clients concerning their overall impression of the materials, after which I adapted the materials accordingly.

Results/Outcomes: The projects performed during the course of this practicum will provide DHMSC clients with comprehensible resources with which they can learn about the PCMH model of care. While the "patient-centered" approach has always been at the heart of DHMSC by virtue of it being a community health center that primarily serves vulnerable populations, the practicum deliverables help to further enhance patient engagement with their providers, their care, and their overall health and well-being.

MATERNAL & CHILD HEALTH

Name: Alexandra May

Practicum Site: Mission Hill Health Movement and Tobin Community Center

Location: Roxbury, MA

Title: Evaluation of Family Fitness Friday

Introduction: This practicum retrospectively evaluated “Family Fitness Friday” (FFF), a monthly free fitness and nutrition program for Boston’s Mission Hill neighborhood. FFF ran from September 2011 to April 2012 as a way to promote healthy lifestyle habits and prevent chronic diseases in Mission Hill. Mission Hill Health Movement and the Tobin Community Center sponsored it. Because of the program’s low participation rate, the evaluation focused on the following questions: 1) What are successful recruitment and retention strategies to engage underserved parents in community-based adult fitness programs? 2) What aspects of community-based adult fitness programs, including program theory, setting, design, duration, and dose, are likely to promote participation of underserved parents?

Methods: First, I conducted a literature review on fitness interventions targeting similar populations. Next, I created an Excel database for a community survey about FFF. I generated frequency statistics for these data using SAS to determine opinions and trends for program planning. Last, I conducted four interviews with fitness program planners in similar Boston neighborhoods to identify the best local practices to increase participation. Collectively, this information was used to identify successful strategies for recruitment, program design, and retention and to inform recommendations for improving FFF.

Results/Outcomes: I wrote and presented a report to the organizations. The report contained results of the literature review, survey, and interviews, together with recommendations for improving FFF. The program planners will integrate the recommendations into the 2012/ 2013 FFF program and are hopeful that new program will attract and retain more participants.

Name: Dilhara Muthukuda

Practicum Site: Massachusetts General Hospital– Community Health Associates

Location: Boston, MA

Title: Health Education and Promotion Intern

Introduction: Stay in Shape is a free after-school program designed to promote knowledge, awareness, and action of healthy living to prevent childhood obesity among adolescent school girls (5th - 12th grades) in the communities served by MGH HealthCare Centers. The program delivers a comprehensive curriculum that addresses healthy eating, stress reduction, and physical activity. CHA works with each individual school in establishing and sustaining the program, provides technical support, such as program orientation and curriculum training, for the designated teachers to run a successful program every school year.

Methods: My primary responsibilities are to 1. Process and analyze the pre- and post- surveys taken by the SIS participants 2. Generate a program summary report based on the analysis of the results 3. Design student handouts to be included in the SIS curriculum 4. Observe and supervise the SIS Summer Mentor program.

Results/Outcomes: At the conclusion of my internship, I will present the program evaluation report to the CHA department and I will also make recommendations for improvements for the next academic year.

Name: Nicole Santomauro

Practicum Site: Boston Medical Center- Perinatal Network Initiative

Location: Boston, MA

Title: Centering Pregnancy Research Assistant

Introduction: Centering Pregnancy works to improve the health outcomes of mothers, babies, and families across the life course by providing an innovative model of group prenatal care that integrates health assessment, facilitative education, and a network of support for pregnant women. The purpose of this practicum was to learn how to facilitate group care, as well as to conduct a preliminary outcome evaluation of Centering Pregnancy at Boston Medical Center (BMC).

Methods: As a Research Assistant, I worked on three projects: data organization, PRAMS analysis, and High Risk evaluation. I first organized all of the data collected so far and tested the Centering database. I then compared BMC’s Centering data to data from the 2009 Massachusetts Pregnancy Risk Assessment Monitoring System (PRAMS) report. I also completed a retrospective chart review in order to compare outcomes in the high risk Centering group with high risk patients who received traditional prenatal care in the year before group care was offered.

Results/Outcomes: Analysis will determine how the patients enrolled in Centering Pregnancy compare to women in Massachusetts overall on behaviors such as smoking, contraceptive use, and breastfeeding. The chart audit will also determine how Centering compares to traditional prenatal care on outcomes including birth weight, gestational age, and smoking status when looking at a high risk population. This preliminary evaluation will be used for internal purposes as Centering prepares to conduct a formal evaluation and research report beginning in January 2013.

MATERNAL & CHILD HEALTH

Name: Heather Sherrard

Practicum Site: Boston Medical Center- Department of Emergency Medicine

Location: Boston, MA

Title: Boston Medical Center Injury Prevention Center/Sports-Related Head Injuries and Concussions School Policy Evaluation

Introduction: Boston Medical Center Injury Prevention Center has numerous projects including the external evaluation of the Massachusetts Department of Public Health's (DPH) CDC-funded injury prevention grant. Massachusetts is a national leader in legislation for prevention of sports-related concussion and consequences. A new regulation requires that all school districts have a sports concussion policy and report all student concussions occurring at school and off campus. As required by these regulations, all schools (districts, Charter, and private) had to provide confirmation to the DPH by 01 March 2012 that a final policy had been implemented. Of these schools that had completed a final policy, a random sample will be evaluated for curriculum content and policy quality.

Methods: The practicum involved working with the DPH to determine what schools (districts, Charter, private) had submitted a final policy by the required deadline. In addition, a policy scoring system was developed based on the 17 requirements outlined in the regulation to determine if each policy either met, partially met, or not met the requirements.

Results/Outcomes: The analysis of the school compliance rate is ongoing. However, preliminary data indicate that as of 25 June 2012 17.6% (168/957) of eligible school districts have provided confirmation of compliance requirements to have a sports concussion policy in place. The quality of the policies that have been finalized is presently being analyzed. The number of schools that have filed requisite reports of annual statistics on the total number of students who have experienced a sports-related concussion is also being determined.

Name: Malindi Thompson

Practicum Site: Healthy Maine Partnerships- Healthy Casco Bay

Location: Portland, ME

Title: Chronic Disease Prevention Intern

Introduction: Healthy Casco Bay (HCB) is a local Healthy Maine Partnership (HMP), funded by tobacco settlement dollars from the Fund for a Healthy Maine. The mission of HCB is to reduce tobacco use, encourage physical activity, improve nutrition, and prevent substance abuse among residents of the Casco Bay Region by providing support and resources for community initiatives.

Methods: I work with local partners to expand current community initiatives by (1) creating and distributing materials, (2) attending meetings and events, and (3) communicating with project leaders. I also analyze state and local data that assess health risk behaviors, and identify trends in the Cumberland County region, which HCB serves.

Results/Outcomes: In 2012, statewide budget cuts reduced Maine CDC funding for preventative health services, resulting in a 60% budget cut at HCB. My work as Chronic Disease Prevention Intern supports efforts to increase HCB resources and other HMP programs that are in serious danger of de-funding. The projects that I have completed will contribute to the success of many small community projects supported by HCB, such as (1) creating a "healthy cookbook" handout with healthy recipes targeting low-income families, (2) recruiting new action team members for the local "Whenever, Wherever" breastfeeding campaign, and (3) drafting a soil testing letter to community gardens. My summary on health and risk-behavior findings will direct future initiatives by outlining key trends and priority areas.

Name: Marianne Tissot

Practicum Site: Harlem Health Promotion Center - Mailman School of Public Health of Columbia University

Location: New York, NY

Title: Public Health Intern for San Jose de Guaduas Hospital

Introduction: The main purpose of this practicum was to design a public health campaign that would effectively address physical violence within adolescent couples. The topic was chosen because for many years this type of violence has been very common in Colombian rural communities. The intervention was designed exclusively for the adolescents of Guaduas a rural town, and it was implemented at the district high school, where 3.000 teens are enrolled.

Methods: First, a survey was applied in order to establish the real prevalence of physical violence within adolescent couples as well as the student's perceptions of how common this problem is. As expected, the results showed that teens believe the negative behaviour is significantly more widespread than it really is. The next step was to use the results to design and implement a campaign which would dispel this misconception, with the message that most teens are not abusive or abused by their couples and urging the teens to "join the majority", so to speak. The intervention was very well received by students and teachers and it's effectiveness will be reviewed at the end of the term, in December.

Results/Outcomes: The projected outcome is a significant reduction in the prevalence of physical violence within adolescent couples. This task was done under the supervision of the district hospital, where other undertakings such as an AIDS prevention pamphlet, a bullying management workshop for high school teachers and a prostitution prevention workshop for high school girls were also successfully completed.

MATERNAL & CHILD HEALTH

Name: Bricia Trejo
Practicum Site: Esteli Ministry of Health
Location: Esteli, Nicaragua
Title: Research Assistant

Introduction: This practicum examined patient perception and satisfaction with pediatric care in Hospital San Juan de Dios, a public hospital in the highlands of Nicaragua. A patient satisfaction survey was designed using definitions of satisfaction given by both patients and providers. The results were used to inform newly initiated quality improvement efforts.

Methods: This practicum involved development and delivery of a patient satisfaction survey. Questions were modeled after the Consumer Assessment of Healthcare Providers and Systems (CAHPS) and adapted to capture specific regional definitions of satisfaction. Based upon this research, quality improvement steps were discussed for future implementation.

Results/Outcomes: Results of the survey were presented to a large audience of healthcare providers and personnel leading to an in depth discussion on the feasibility of possible next steps for quality improvement. The audience participated in a discussion on key obstacles to patient satisfaction and provided solutions including the delivery of food to patients as well as caregivers and thorough fumigation for pest control.

Name: Jessica Turon
Practicum Site: Childbirth Connection
Location: New York, NY
Title: Maternity Shared Decision Making Initiative intern

Introduction: Although the normal course of maternity care presents many opportunities for shared decision making, few women experience this evidence-based process for achieving better, more patient-centered care. Formal decision aids can help patients, families, and clinicians discuss options and reach decisions that match patients' preferences and values. The Informed Medical Decisions Foundation and Childbirth Connection have launched a joint, multi-year initiative to create novel, interactive maternity care decision aids. My work on the initiative integrates two national health policy priorities – shared decision making and quality measurement – to support meaningful consumer use of publicly available quality data within one of the new decision aids.

Methods: I researched, drafted, and refined content for a decision aid on choosing a pregnancy care provider and birth setting. I also identified national and state-specific maternity care quality data at the level of the hospital and clinician, creating the first known database of this nature for any clinical area. I annotated these data to help make them understandable for users in the context of the decision aid and broader initiative.

Results/Outcomes: When the initiative's website launches, women who use the tool will decide among four options: doctor/hospital, midwife/hospital, midwife/birth center, and midwife/home. After making this decision, the user will identify and evaluate her local care options based on her values and preferences, using the material I wrote. She will have access to current quality, performance, and safety data on her local care options, presented in a way that is easy to access and interpret.

SOCIAL & BEHAVIORAL SCIENCES

Name: Jennica Allen

Practicum Site: Boston Public Health Commission- Center for Health Equity and Social Justice

Location: Boston, MA

Title: Professional Development Services Intern

Introduction: The Boston Public Health Commission (BPHC) is committed to eliminating health inequities. Much of this commitment is seen in the work of the Commission's Center for Health Equity and Social Justice. An important organizational strategy is the Racial Justice and Health Equity Initiative that is in part implemented via the Professional Development Series (PDS). The PDS provides learning experiences for all BPHC staff and consists of a core and related workshops designed to promote and sharpen relevant professional skill sets. The PDS also includes coaching and provision of resources that advance health equity through policies and practices across the Commission's work.

Methods: As an intern, I was involved with different elements of PDS including: 1) collaboration with Content Advisors to align materials for facilitators and participants for three practice workshops (Racial Justice Community Engagement, Equitable Policy Development, and Racial Justice Framing); 2) compilation of suggestions and feedback provided in various meetings and practice sessions; 3) making needed appropriate modifications to the resource materials; and 4) co-facilitating a New Hire Orientation and a seminar on Health Equity and Racial Justice for other interns at the Commission.

Results/Outcomes: These completed preparatory activities will enable each practice workshop to be ready for implementation to BPHC staff beginning in the Fall of 2012.

Name: Jordan Baeker

Practicum Site: University of Kentucky Prevention Research Center- Markey Cancer Center

Location: Lexington, KY

Title: Preparing Implementation of the Walk by Faith[®] Intervention: a Project of the Appalachia Community Cancer Network Research Program

Introduction: Cancer disparities have been documented among residents of Appalachia and obesity is a major modifiable risk factor for colorectal cancer. The Appalachia Community Cancer Network, headquartered at the University of Kentucky, has partnered with churches in the Appalachian regions of Kentucky, Pennsylvania, Ohio, Virginia, and West Virginia to test a faith-based intervention called "Walk by Faith." The aim of the initiative is to reduce risk for obesity by increasing physical activity and improving diet among participants. This practicum centered on preparation work for UK's implementation of a 5-year group-randomized trial in two eastern Kentucky counties.

Methods: Literature was reviewed to identify social and other factors known to contribute to Appalachian health disparities. County level health indicator data, including demographics, morbidity and mortality, access to health resources, and behavioral risk factors was compiled to create a written community health profile for Floyd and Magoffin counties. Several key informant interviews were conducted with community advisory board members to gain additional information about community needs and assets. A research implementation protocol was developed that included the intervention logic model and an Institutional Review Board application.

Results/Outcomes: The community health profile document describes the health landscapes of Floyd and Magoffin counties and will serve as an important basis for current and future community health improvement publications and grant applications. The profile has been distributed to the cancer network staff and members of the community advisory board. The IRB application will be reviewed and modified so that implementation of the study may begin in January 2013.

Name: Elaine Chan

Practicum Site: Women of Means

Location: Wellesley, MA

Title: Women of Means Community Health Worker Needs Assessment

Introduction: Women of Means (WoM) is a non-profit organization comprised of paid and volunteer doctors and nurses who provide free medical care for homeless women at two shelters in Boston. The scope of services delivered is extensive and address an unmet need. In order to improve quality, increase access and promote continuity of care, an assessment was conducted to explore the feasibility of implementing a community health worker (CHW) program to connect homeless women, WoM providers and community resources. This would complement current services offered by WoM providers.

Methods: Interviews and site visits were conducted with several stakeholders (WoM providers, collaborators, shelter program managers and clients) to identify both gaps and strengths of current services and to assess need. In order to increase accuracy and reliability, interview guides were developed for use by the two-person researcher team.

Results/Outcomes: A report that summarized several themes from the needs assessment was prepared and distributed. Based on a review of organizational gaps and challenges and the best practice characteristics of researched CHW programs, recommendations were made to strengthen organizational needs and to develop a pilot CHW program to complement the work of WoM providers.

SOCIAL & BEHAVIORAL SCIENCES

Name: Cristina Cruz
Practicum Site: WBUR- Health Care Savvy
Location: Boston, MA
Title: Healthcare Savvy Intern

Introduction: With the Affordable Care Act and other legislation devoted to making health care more obtainable and patient-friendly, many health care consumers have questions about how to get the best care at a reasonable price. Healthcare Savvy is an online community and forum for answering these questions and for patients to share their healthcare experiences. It also links patients to online resources to help them make more educated choices about where and how they receive their care. The purpose of the practicum was to expand the outreach of the site by developing new content and building/maintaining social media accounts to connect users to more health-related content and, ultimately, introduce new people to the site.

Methods: Wellness-related posts were created for the home page of the site. Current medical/health policy topics relevant to the Healthcare Savvy audience, content from the site and wellness items, especially in regards to nutrition and fitness, were pushed out through social media platforms, namely Facebook, Twitter and Pinterest. Background research on how to manage social media accounts and strategies to increase member engagement was conducted. In addition, a project plan for future Healthcare Savvy activities was established.

Results/Outcomes: Healthcare Savvy has expanded the scope of its content and is seeing more activity on its social media accounts. Recommendations for future improvements to the site will enable visitors to better connect with the site's social media accounts and submit their questions & ideas for future content.

Name: Stephanie Gonzalez-Vitale
Practicum Site: Somerville Health Department
Location: Somerville, MA
Title: Social Media Marketing Intern

Introduction: Somerville Cares about Prevention (SCAP) is a community coalition that focuses on reducing alcohol, marijuana and prescription drug abuse in Somerville. As a social media intern, my activities contributed to the goal of reducing rates of underage drinking and substance abuse among Somerville adolescents by increasing protective factors, namely family communication about alcohol, tobacco and other drugs (ATOD).

Methods: Activities included: 1) creation 28 qualitative surveys, implementation, and facilitation of eight focus groups designed to identify the values, motivations, and beliefs of among Somerville youth between 11 to 19 years old; 2) review of the MADD Strengthening Families program, which emphasizes healthy families and high youth self-esteem as primary protective factors; (3) planning for a future short- and long-term outcome evaluation, using pre and post YRBS data to determine if the proposed campaign contributes to an increase in the percentage of high school students who do not use ATOD.

Results/Outcomes: Analysis of focus group data led to the creation of a social media campaign, YOLO Somerville, which promotes protective factors, information, and skill building through a facebook (FB) page, and various posters that will be distributed throughout the Somerville public schools. "You only live once" ("YOLO") is a phrase commonly used among Somerville adolescents as means of ATOD peer pressure. The campaign aims to change the perception of YOLO to be positive and anti-drug. YOLO Somerville encourages teens to "make their life count" by choosing not to use ATOD.

Name: Gillian Hurwitz
Practicum Site: Beth Israel Deaconess Medical Center- Department of Healthcare Quality
Location: Boston, MA
Title: Inpatient Quality Improvement

Introduction: In the US, one-fifth of Medicare patients are readmitted to hospitals within 30 days of discharge, with a large proportion of these readmissions being considered costly and avoidable. These readmissions often occur as a result of uncoordinated care and poor discharge planning. MyCare Conferences is a tool that seeks to rectify the aforementioned problems by proactively bringing together an inpatient at "high risk" of being readmitted within 30 days, their family and members of their health care team for a discussion aiming to clarify issues surrounding the patient's discharge. The purpose of this practicum was to work with the Inpatient Quality Improvement team at BIDMC to evaluate the efficacy of the implementation of the MyCare Conference pilot and develop recommendations for the expansion and adoption of the model.

Methods: I observed several MyCare Conferences; interviewed parties involved in MyCare Conferences on an inpatient clinical unit; analyzed data related to patient demographic and readmission data; created tools to enhance efficiency of the MyCare Conference model and integrated the future implementation of the model on other inpatient units.

Results/Outcomes: Preliminary results of this study suggest that this tool should be useful in decreasing readmission rates, and have a significant role in controlling health care costs and improving patient outcomes.

SOCIAL & BEHAVIORAL SCIENCES

Name: Emily Hyman
Practicum Site: East Boston Neighborhood Health Center
Location: Boston, MA
Title: Family Medicine Redesign

Introduction: The East Boston Neighborhood Health Center's (EBNHC) Family Medicine Department is committed to providing quality care. To achieve this it is essential to improve efficiency especially as providers are increasingly asked to see more patients and provide more care with fewer financial resources. The goal of this practicum was to identify administrative tasks that medical assistants could take on for providers, therefore freeing up providers to spend more time administering care, ultimately improving EBNHC Family Medicine's efficiency and quality of care.

Methods: Providers and medical assistants were shadowed and the online mapping program, LucidChart, was used to document workflow and medical assistant responsibilities and processes for prenatal and physical exam visits.

Results/Outcomes: The workflow mapping identified: 1) processes that could streamline medical assistant tasks; and 2) activities that providers were conducting that could be completed by medical assistants, e.g. providing cab vouchers for delivery at BMC. With more time to spend with patients and less time spent on administrative duties, increasing medical assistant administrative responsibilities should ultimately lead to higher quality care for patients.

Name: Lynn Ibekwe
Practicum Site: Boston Medical Center- Medical Information Systems Unit
Location: Boston, MA
Title: Research Intern

Introduction: The MISU's mission is to develop and evaluate automated systems for monitoring, educating, and counseling patients and consumers regarding their health, and to facilitate the care that they receive from health providers. Three of the Unit's studies address social, behavioral and structural issues related to exercise promotion in Blacks/African Americans. 1) One study tests the effectiveness of an automated, culturally adapted telephone exercise coach in increasing physical activity in African American primary care patients with high blood pressure. 2) Another study investigates the effectiveness of a similar telephone exercise coach in promoting physical activity in Black/African Americans in the general public. 3) In development, a third study seeks to evaluate the process of implementing a new function in the electronic medical record used by the BMC General Internal Medicine and Family Medicine clinics to facilitate exercise counseling by providers and referral of patients to a computerized exercise coach during primary care office visits.

Methods: Practicum activities included 1) participant recruitment 2) design and formatting of data collection tools, 3) data collection, and 4) data management and analysis planning.

Results/Outcomes: Recruitment for the two active studies will lead to a better understanding of the relationship between ethnic identity, physical activity, blood pressure control, and use of culturally adapted, automated interventions. The design of data collection tools and data management planning sets the stage to launch the new study. This may lead to the permanent adoption of the EMR exercise counseling application at BMC and diffusion to other practice settings.

Name: Janine Lipsky
Practicum Site: Boston University- Sargent College of Health and Rehabilitation Sciences, Sargent Choice Nutrition Center
Location: Boston, MA
Title: Computer Assisted Qualitative Data Analysis of Focus Group and Semi-Structured Interview Transcripts

Introduction: The Sargent Choice Healthy Dining Program (SC) is an environmental intervention designed to facilitate healthy eating at Boston University (BU) by expanding and enhancing healthy options available at campus dining halls. The purpose of this practicum was to assist in the qualitative data analysis of focus group and semi-structured interviews conducted for quality improvement purposes of the SC program.

Methods: BU students enrolled in a dining plan were recruited to participate in six focus group discussions to assess satisfaction and barriers to participation in the SC program. The groups consisted of male and female "users" and "non-users" of the SC program at the two main dining halls. Semi-structured interviews were conducted with key stakeholders to assess aspects of the program environment that influenced program implementation. Atlas.ti 6.2, a coding software, was used in the data analysis to code and analyze the focus group and interview transcripts. First, code names were attached to segments of text to identify relevant and broad common themes. Second, the codes were reviewed, resulting in the merging of some codes and the creation of new sub-codes for overarching themes. Finally, queries were run, based on the focus group and interview discussion guides, and research questions, to further explore identified themes.

Results/Outcomes: The results from this analysis will contribute to a process evaluation of the SC program.

SOCIAL & BEHAVIORAL SCIENCES

Name: Caitlin Masters

Practicum Site: Boston Medical Center- Pediatric Clinic

Location: Boston, MA

Title: Volunteer Coordinator and Consultant to Cardiology Pediatric Clinic

Introduction: Boston Medical Center (BMC) is the only safety net hospital in Boston, serving a large and diverse patient population. The Pediatric Outpatient Department strives to improve the health outcomes of its patients through education, quality service delivery and outreach. The bWellCenter was created to assist in this process. The purpose of this practicum was two-fold: to create information and services directory resources for patients on three specific topics to be promoted at the bWellCenter and to improve the provider/patient interaction flow within the Cardiology Pediatric Department.

Methods: To inform the development of resources for patients on the topics of safety, bullying and physical activity, key informant interviews were conducted with content experts on each topic. This served as the basis for each informational packet that was created to describe numerous Boston-specific resources. To improve the flow of the Cardiology Department, ten sample observations were made, current literature on cardio provider/patient interaction flow was reviewed, and graphs were created to illustrate current flow patterns.

Results/Outcomes: The informational packets will be distributed to patients and guardians to increase awareness and enable better access to local Boston resources. In addition, within the Cardiology Department, recommendations for new practices and measure will be implemented to decrease patient wait time and improve quality and efficiency of each appointment.

Name: Nisha Mehta

Practicum Site: Boston University School of Dental Medicine- Department of Health Policy and Health Services Research

Location: Boston, MA

Title: Community-Based Research Intern for Tooth Smart Healthy Start

Introduction: CREEDD aims to eliminate oral health disparities using community engagement, community-based research interventions, integrated training and career development, broad dissemination of research findings, and targeted health policy initiatives. For my practicum, I assisted with the Oral Health advocates in Public Housing Study. This study aims to (1) determine if a multimodal intervention (fluoride varnish and motivational interviews) reduces the two year incidence of cavities in children aged 0-5 living in public housing and (2) assess the effect of Motivational Interviewing on caregiver behavior.

Methods: Community-based recruitment and retention strategies and challenges in research with underserved populations were reviewed using literature reviews, data from current strategies and surveys exploring staff perceptions of success. Based upon this data, recommendations were made for future recruitment and retention strategies.

Results/Outcomes: The final report summarizes the quantitative and qualitative analysis of the efficacy of current recruitment and retention rate methods. It also suggests ideas to increase future recruitment and retention rates. This data will also be used in the development of focus groups that will explore this topic further with study participants.

Name: Hannah Nichols

Practicum Site: Massachusetts Department of Public Health– Local Board of Health Summer Internships

Location: Vineyard Haven, MA

Title: Martha's Vineyard DOH Intern

Introduction: Martha's Vineyard is an island off the coast of Massachusetts with a population ranging from 20,000 year-round residents to roughly 100,000 people during summer months. Tick-borne illnesses (TBI) are endemic in the area due to a high deer population and vast undeveloped land. In 2010 Martha's Vineyard reported 25 cases of Lyme disease to the CDC while the island pharmacies filled enough Doxycycline prescriptions for over 1,000 patients. The internship aimed to retrospectively gather prevalence data for TBIs and prospectively increase the number of reported cases of TBIs.

Methods: The number of Doxycycline prescriptions and total number of pills dispensed were collected from island pharmacies for years 2009-2011. A Linelist/Spreadsheet approach to Lyme disease reporting was created and implemented in three private physician offices. Lyme disease patient information was collected from medical records from the Martha's Vineyard Hospital Emergency Department.

Results/Outcomes: The total number of Doxycycline prescriptions, assessed to 90% probability, was estimated to be [1482, 1424, 1880] for the years 2009-2011. The Linelist/Spreadsheet approach identified approximately 150 Lyme Disease patients for the month of July. Through interviewing physicians and reviewing medical records, the issue of coding and diagnosis became apparent. Not all patients are being coded or identified as Lyme disease patients although they are being treated with 21-28 days of Doxycycline and report weakness, fever, or joint pain. While efforts have improved the number of reported cases and included out-of-state patients, more must be done to increase the number of reported TBI cases to the MDPH.

SOCIAL & BEHAVIORAL SCIENCES

Name: Elizabeth Schmit

Practicum Site: Boston Medical Center- Pediatric Adolescent Medicine

Location: Boston, MA

Title: Assistant to the Family Planner

Introduction: The Family Planner (FP) is a professional position within the Adolescent Center in the Pediatrics Department at Boston Medical Center. The FP functions as an educator and a resource for adolescent patients and their sexual health needs. The FP counsels adolescents on responsible sexual health, risk and protective behavior and how to effectively prevent pregnancy and disease. As an assistant to the FP I was trained in the duties and responsibilities of the position. The primary goal of the practicum was to increase my competence and confidence in order to conduct independent counseling sessions with patients.

Methods: Several activities were conducted: 1) counseled and informed patients about choices of birth control methods available to them; 2) conducted pregnancy options counseling visits with patients and demonstrated capacity to explain STI testing and interpretation of results; 3) managed clinical process data (FPERs, databases); and 4) analyzed the FP's patient encounter data over a three month span.

Results/Outcomes: My experiences interacting with the adolescent FP patient population, mostly young black females, at BMC provided me with a unique perspective of their health needs. As the FP continues to be an essential part of the Adolescent Center healthcare model at BMC, personal reflection suggests that the department to consider two questions: 1) what role does Long Acting Reversible Contraception (LARC) play in clinical practice; and 2) how can fertility concerns of the adolescent population be best addressed when counseling around contraception, particularly with consideration to how perceptions of impaired fertility will effect contraceptive compliance?

Name: Adrianna Sicari

Practicum Site: Fenway Community Health- The Fenway Institute

Location: Boston, MA

Title: The Fenway Institute Summer Intern

Introduction: The Fenway Institute's mission is to improve health for LGBT people through research, evaluation, education, training and advocacy. Several factors contribute to health and well being throughout the life course. The focus of this practicum was participation in the "Mealsite Study", a survey that was conducted to assess factors that influence LGBT elder health as social support dwindles in late adulthood. In particular, the study examined the effects of loneliness, isolation and "outness" in a cohort of LGBT elders in Boston and surrounding communities.

Methods: Practicum activities included; 1) Revision of existing data analyses in SPSS. 2) Creation of a presentation to share study results with individuals at sites where data was collected; and, 3) Preparation of a "community report" and executive summary prior to potential publication in the future.

Results/Outcomes: Initial findings were presented the at the largest community café where data collection took place, and the completed community report and executive summary were distributed. Next steps include synthesis of qualitative and quantitative data collected for intervention development.

Name: Sarah Voorhees

Practicum Site: Boston University- Office of Judicial Affairs

Location: Boston, MA

Title: Bystander Intervention for Sexual Violence Prevention at Boston University

Introduction: Bystander intervention has been a significant public health tool for sexual and gender-based violence prevention. Such programs aim to create a community of responsibility, awareness, and action around violence prevention. This year, Boston University piloted the Bringing in the Bystander program, created by the University of New Hampshire, to an initial group of students. Boston University's Dean of Students and the Sexual Assault Response and Prevention Center will work collaboratively to modify and expand this program, making it increasingly relevant and available to BU students in the fall of 2012.

Methods: Several steps were involved in the process: (1) review pilot implementation, student participant and program facilitator feedback, and adjust the program accordingly; (2) work with facilitators providing support and constructive suggestions regarding facilitation; (3) collect feedback from student participants who attended modified program sessions; (4) incorporate all feedback with final program adjustments; and (5) assist in developing an evaluation plan for the bystander program.

Results/Outcomes: It is essential for public health programs to be tailored to a specific population's needs. At the conclusion of this practicum, BU's bystander intervention program will include: updated examples and relatable scenarios, and additional information regarding: consent, sexual violence statistics, strategies for intervention, and survivor resources. A program script will be available to facilitators, and additional handouts available for facilitators and participants. An evaluation plan, including a survey measuring change in students' attitudes, beliefs, and actions will be created.

