

Boston University School of Public Health

# Student Practicum Abstracts

Fall 2012





## BUSPH STUDENT PRACTICA FALL 2012

The BUSPH Office of Public Health Practice is pleased to present the Fall 2012 Student Practicum Abstract Book featuring students' practicum experiences. Our office would like to congratulate this semester's practicum students for their accomplishments and express our appreciation to the agencies and organizations for their commitment to the BUSPH practicum program and for providing our students with valuable, hands-on public health experience.

*Where in the world were BUSPH fall practicum students?*

**36 Cities and Towns**  
**3 States across the U.S.**  
**18 Countries**

Bolivia  
Brazil  
Cameroon  
Dominican Republic  
Ghana  
Guatemala  
Haiti  
India  
Kenya  
Mexico  
Namibia  
Nepal  
Nigeria  
South Africa  
Tanzania  
Uganda  
United States  
Zambia



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# BIostatISTICS

**Name:** Gina Chien

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

**Location:** Boston, MA

**Title:** Clinical Trials Intern

**Introduction:** The TB Clinical Diagnostics Research Consortium is a consortium of trained personnels with expertise in TB diagnostics, clinical trials, and international studies. Their mission is help with the developmental pipeline for new diagnostics on TB management in endemic countries. The main study I worked on involved the evaluation of a standardized antibiotic microplate (Sensititre® MYCOTB MIC) for testing susceptibility of MDR-TB isolates to 1st and 2nd line TB drugs in isolates from Uganda and South Korea. This was completed by examining the concordance of results from the MYCOTB Plate against the Agar Proportion Method, the agreement of inter-reader results, and the number of days needed for a clear reading from the MYCOTB Plate.

**Methods:** As a Clinical Trial Intern, my task involved working on the data management, quality control, and analysis portion of the TREK study. In addition to data collection and cleaning, I also helped develop Standard Operating Procedures for data querying. A large portion of my practicum consisted of data analysis. This included the development and discussion of data analysis strategy, database manipulations and programming on SAS, and the formation of results in a presentable format.

**Results/Outcomes:** The results of the study showed that the MYCOTB testing method resulted in shorter time to results than the Agar Proportion Method. There are high consistencies in the MYCOTB plate reading between readers for most drugs, and also the results of concordance was high between the MYCOTB and APM isolates for most drugs tested.

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**Name:** Vicky Li

**Practicum Site:** Blue Cross Blue Shield of Massachusetts- Performance Measurement and Improvement

**Location:** Boston, MA

**Title:** Analytic Intern

**Introduction:** This practicum examined the impact of health care quality on annual medical expenses of Blue Cross Blue Shield of Massachusetts (BCBSMA) members with diabetes. The purpose of this analysis is to quantify the quality-cost association to explain the value of the better health care quality experienced by members in the Alternative Quality Contract (AQC) to BCBSMA account stakeholders.

**Methods:** Quality of care among diabetic members was assessed using the BCBSMA AQC ambulatory measure set, with higher measure compliance rates meaning better quality of care. Potential associations between these measures and health care spending were examined in the literature field. However, given the limited amount of quantitative evidence, only the HbA1C control measure was used in the cost analysis. HbA1C control compliance was compared between the AQC and non-AQC HMO members, and the difference in compliance rates between the AQC and non-AQC group was translated into cost-savings.

**Results/Outcomes:** According to the control target of the measure set, the AQC group had higher HbA1C compliance rates than non-AQC members. Analysis of 2011 medical claims also showed the AQC group having lower average total annual cost. Results from literature review showed that on average, each 1% increase in HbA1C level corresponds to about 7% increase in total medical charges per member per year. It was thus calculated that the difference in compliance rates between the AQC and the non-AQC groups would be translated to a 27% increase in total annual medical costs per member, had the AQC members not been in AQC.

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**Name:** Nicole Spillner

**Practicum Site:** Massachusetts General Hospital- Alzheimer's Research Unit

**Location:** Boston, MA

**Title:** Research Assistant

**Introduction:** Alzheimer's disease (AD) has historically been difficult to diagnose at early stages. However, loss of olfactory function, often measured by olfactometers, has been identified as a marker of pre-clinical and asymptomatic AD. The purpose of this study was to evaluate the effectiveness of a new olfactometer in detecting AD in elderly subjects.

**Methods:** I worked with the Principle Investigator (PI) of this study to analyze the results of the study. Fourteen outcomes measuring olfactory function were analyzed. Backward elimination was used to determine covariates related to the outcomes and ANCOVA was used to determine which diagnostic groups differed from each other (Normal Elderly, Impaired, Amnesic MCI, and AD) on the outcomes adjusting for these covariates.

**Results/Outcomes:** Data available as of November 9, 2012 were analyzed for this project. Analysis was done using SAS statistical software and revealed that AD subjects consistently scored lower on the olfactory measures than the other diagnostic groups, although this finding was significant for only some outcomes. These results, in conjunction with future analyses will be used by the PI in the submitted final manuscript and will determine that this olfactometer is effective at diagnosing pre-clinical and asymptomatic AD.

# BIOSTATISTICS

**Name:** Pearl Zakrotsky

**Practicum Site:** Massachusetts General Hospital- Department of Cardiac Imaging

**Location:** Boston, MA

**Title:** Assessing Predictive Risk Factors for Development of Acute Coronary Syndrome

**Introduction:** Several studies have shown that patients with Inflammatory Bowel Disease (IBD) have a higher incidence of coronary artery disease (CAD) compared to patients without IBD. However, little is known about potential risk factors contributing to the development of CAD, and more specifically acute coronary syndrome (ACS), in this cohort. This retrospective Case-Control study was designed to identify potential clinical predictors of ACS in patients with IBD.

**Methods:** I first conducted an extensive literature review of the association between IBD and ACS and developed a study hypothesis and aims. Using the Research Patient Data Registry (RPDR), I identified 59 IBD patients with an ACS between 2003 and 2011. I then compared cases to 118 IBD patients without ACS matched on age, gender, and IBD type. I reviewed electronic medical records to collect detailed information including demographics, medication use, medical history, vitals, and laboratory data. I used a T-test for normally distributed continuous variables and Chi-Square test for categorical variables. I performed a conditional logistic regression and used stepwise selection to identify predictors of ACS.

**Results/Outcomes:** Steroid use (past or present), smoking, peripheral vascular disease and/or stroke, aspirin use, and duration of IBD were found to be significantly associated with ACS. Surprisingly, both exposure to steroids and IBD duration reduced the odds of ACS (steroids OR: 0.23,  $p < 0.01$ ; IBD duration OR: 0.96,  $p = 0.02$ ). Identifying which factors put IBD patients at greater risk of ACS will aid in future management and treatment of patients with established IBD.



# ENVIRONMENTAL HEALTH

**Name:** Vania Ahmadi

**Practicum Site:** California Environmental Protection Agency- Reproductive and Cancer Hazard Assessment Branch/Cancer Toxicology & Epidemiology Section

**Location:** Oakland, CA

**Title:** Scientific Aid

**Introduction:** California Environmental Protection Agency's Office of Environmental Health and Hazard Assessment (OEHHA) Reproductive and Cancer Hazard Assessment Branch is responsible for proposition 65 mandates to screen data on chemicals that Californian's are exposed to and to list those that have evidence of carcinogenicity. In this practicum I completed assignments that introduced me to the work done by OEHHA in the steps taken in the prioritization, screening, and listing of a Proposition 65 chemical.

**Methods:** I reviewed mode of action challenges made to a listed prop 65 chemical. This assignment required reading and critiquing primary literature on this chemical and participating in discussions about the validity of the challenger's argument that such a chemical has a threshold dose that it is carcinogenic. I screened the recent primary literature for chemicals being currently tracked by OEHHA. By reviewing abstracts found on PubMed, I searched for positive animal and human studies that show the chemical's carcinogenic potential. When new studies were identified I reviewed the contents and discussed with my supervisor whether the study was valid as additional evidence and if it changed the chemicals carcinogenic listing rank.

**Results/Outcomes:** I participated in discussions on how to respond to industry's challenges on mode of action of carcinogenicity. I helped update data screens on tracked prop 65 chemicals.

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**Name:** Faye Andrews

**Practicum Site:** Town of Lexington- Office of Community Development

**Location:** Lexington, MA

**Title:** Not Your Average Waste: Local Health Department's Initiative on Household Medical and Hazardous Waste

**Introduction:** In July of 2012, legislation in Massachusetts was promulgated (105 CMR 480.000) to eradicate sharps from household waste. Health departments previously established drop off sites or installed mechanical kiosks for sharps, as well as mercury waste, where untrained and unknowing public health employees disposed of the waste. The focus of this project was to formally educate health department staff about the inherent hazards of collected material. A working manual and mercury factsheet were created for the Town of Lexington to educate town employees about safely collecting and disposing of hazardous and medical waste.

**Methods:** Relying on the information from Massachusetts DEP & DPH, USEPA, Stericycle and Vestra Corporations, I compiled and drafted the working manual and mercury factsheet. The manual was formatted to be a step-by-step model of how to design a medical sharps collection day. The fact sheet was created to outline a "no brainer" approach to care for mercury contaminated waste. Lastly, I participated in a hazardous waste collection day by registering, directing and organizing citizens to drop off household hazardous waste.

**Results/Outcomes:** The generated manual and factsheet were influenced by the collection days to make the documents more user-friendly based on my experiences. The manual was shown to representatives of the Massachusetts Environmental Health Association and submitted to the NEHA Annual Education Conference for July of 2013. The main goal is to have the manual and factsheet disseminated to other town health departments to assist in their safe collection of medical and hazardous wastes.

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**Name:** Carolyn Weber

**Practicum Site:** Framingham Board of Health

**Location:** Framingham, MA

**Title:** Framingham Board of Health Food Protection Program Data Analysis and Inspector Manual

**Introduction:** The Framingham Board of Health is responsible for a wide variety of services that are of significant public health concern. The Food Protection Program (FPP) is responsible for ensuring that food establishments are protecting the public's health through strict adherence to sanitation and food safety standards. Due to significant turnover in the inspection staff, and insufficient oversight of the FPP, the Framingham Board of Health is interested in analyzing the current status of its food establishment inspections, and developing a training program for incoming staff members.

**Methods:** Site visits, accompanying an inspector of food establishments, researching current federal and state food safety standards, practices and regulations are used to gain an understanding of food safety and sanitation standards, as well as the process that food inspections follow. Statistical analysis of electronic inspection data files from inspections over the past two years is used to quantitatively evaluate the current effectiveness of the FPP in meeting its statutory requirements and identify future gaps in the program.

**Results/Outcomes:** A training document is being developed for use by new and experienced food inspectors, which explains the public health reasons for relevant provisions of the 1999 FDA Food Code and the MA amendments. The data analysis is being used to identify program gaps and help guide the FPP toward the implementation of a risk-based inspection program in the Town of Framingham.



**Name:** Yuki Ara  
**Practicum Site:** Children's Hospital Boston- HealthMap  
**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 and fall.

**Results/Outcomes:** From the collected news alerts, we could follow the trend of foodborne illness in Japan and US. While the cause of the gastroenteritis in Japan weighs on E.coli and Campylobacter in Summer and many mushroom poisoning and norovirus in Fall, the trend was different in the US.

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**Name:** Sandra Armarkovitch  
**Practicum Site:** Boston Medical Center, Infectious Disease Clinical Trials Unit - Tuberculosis Clinical Diagnostics Research Consortium  
**Location:** Boston, MA  
**Title:** Evaluation of Novel Tuberculosis Diagnostic Tests through the Tuberculosis Clinical Diagnostics Research Consortium

**Introduction:** The Tuberculosis Clinical Diagnostics Research Consortium (TB CDRC) is associated with four clinical study sites in tuberculosis (TB) endemic countries in which feasibility studies of novel diagnostic tests for TB in the developing world are being conducted. As an intern for the consortium's Data Coordinating Center, I performed tasks related to the management of data submitted by clinical study sites, including creating standard operating procedures for data submission and query completion, extracting the data using TeleForm®, and cleaning the data. I also conducted an analysis of interim data evaluating a standardized antibiotic microplate for testing the susceptibility of TB isolates to first and second line TB treatment therapy drugs.

**Methods:** Reference labs in Uganda and South Korea used archived TB isolates to evaluate the ability of the Sensititre® microplate to test isolate susceptibility to 12 first and second line drugs, utilizing an agar proportional method (APM) as a comparison test. I conducted an interim analysis for 182 of the TB isolates. This included preparing summary tables of isolate susceptibility results for both tests, tables evaluating the sensitivity and specificity of the microplate test in comparison to the APM test, and corresponding figures, such as percent resistance and ROC curves, using SAS 9.3 and Excel.

**Results/Outcomes:** An ongoing study, the interim results I was able to provide indicate that the microplate is a feasible diagnostic test with shorter times to results and a sensitivity/specificity for the detection of resistance of 90% or greater for most drugs compared to APM.

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**Name:** Dana Baarsvik  
**Practicum Site:** John Snow Research and Training Institute, Inc.- Health Services Division  
**Location:** Boston, MA  
**Title:** JSI Health Services Intern

**Introduction:** The obesity epidemic is a multi-factorial public health issue. The role that food access plays in the problem is not entirely understood. In October of 2011, a large food retailer entered a community in Northborough, Massachusetts with limited access to a grocery store. In conjunction with Building a Healthy Northborough (a Mass in Motion initiative), John Snow Inc completed a cross-sectional study examining food perceptions and behaviors in the community.

**Methods:** Residents of a neighborhood within a mile of the new store were surveyed before and after it opened (Pre-test n= 79, Post-test n=101). Tests for differences between the two time points were run using SAS9.1.

**Results/Outcomes:** Significant increases were seen in proportion of respondents shopping for 'Best Quality' food ( $p<.001$ ) and in perceptions of food variety ( $p<.05$ ). Perceptions of food access in the community increased significantly. Changes were seen in the amount of fat consumed, with diets low/very low in fat increasing in prevalence and diets high/very high in fat decreasing in prevalence ( $p<.09$ ). The proportion of respondents that reported trying new fruits and vegetables increased slightly (15.38% to 17% for fruits and 15.19% to 17% for vegetables). Mean servings of vegetables consumed per-day increased pre to post-test (2.56 to 2.65) as did mean servings of fruit (2.4 to 2.5), though neither change was statistically significant. Given the extensive work around the built environment as a platform to reduce the obesity, these results provide insight about the efficacy of interventions designed to address the issue of food deserts and access.

# EPIDEMIOLOGY

**Name:** Thomas Fitzgerald

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

**Location:** Boston, MA

**Title:** Trends in and Effects of Weather on Legionellosis Incidence in Massachusetts, 2000-2011

**Introduction:** Legionnaire's Disease is a pneumonia caused by infection with legionella bacteria. Infection can be severe in immunocompromised individuals, with case fatality rates above 40%. Legionellosis occurs sporadically and in outbreaks, and is a nationally notifiable condition. In Massachusetts, cases are reported by clinicians and laboratories to MDPH. Literature suggests that legionellosis has increased in the US, particularly the Northeast, since 2003, with reported cases increasing by 70%. Some literature suggests that extreme weather events and patterns may be associated with incidence. Data have been collected since the mid-1990s, but have not been analyzed for trends.

**Methods:** After conducting a literature review, data from the Massachusetts disease surveillance system (MAVEN) were extracted for analysis using SAS. Data were cleaned, merged and analyzed for trends in demographics, diagnostic methods, morbidity, and mortality. Crude and age-adjusted incidences in Massachusetts were compared against national and regional incidence geographically and over time. A 2:1 matched case-crossover study will be conducted after obtaining weather data to compare patterns in the time preceding symptom onset with the same time period one year before and after.

**Results/Outcomes:** Massachusetts has seen increased legionellosis incidence in all regions over the past decade. Surprisingly, legionellosis appears to be increasingly affecting people aged 45-64. Legionellosis assumes late summer seasonality; incidence spikes from August through September, correlating with our theory of the association of incidence with hot, humid conditions. Diagnostically, the urine antigen test has been used almost exclusively since 2007. Further analysis will examine the effects of weather on legionellosis incidence.

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**Name:** Elise Gorseth

**Practicum Site:** Beth Israel Deaconess Medical Center- Celiac Center

**Location:** Boston, MA

**Title:** Research Assistant - Celiac Disease Fingerstick Testing

**Introduction:** The Celiac Center at BIDMC conducts research related to the diagnosis and treatment of celiac disease. In the United States, celiac disease is believed to be highly underdiagnosed, with only 10% of patients identified. A new fingerstick point of care test for identification of potential celiac disease is approved in Canada and Europe and is in the final stages of evaluation for potential approval by the US FDA. The test reportedly is more than 90% sensitive and specific for celiac disease diagnosis. Use of this new fingerstick serologic test gives the possibility of reaching more potential patients and conducting more efficient studies of celiac diagnosis.

**Methods:** The Celiac Center is in the process of distributing ~500 fingerstick test kits to first degree relatives of patients diagnosed with celiac disease. Kits were distributed at celiac disease support group meetings and through the diagnosing physicians' offices. Research subjects will also be approached via social media, including on-line patient forums, high profile gluten-free bloggers and Facebook. Subjects agree to test themselves using the protocol included with the test kit and to report their interpretation of the results in addition to returning the kit to the Celiac Center for secondary interpretation. Data analysis will be primarily descriptive and include the proportion of kits returned, the proportion of positive tests, and the correlation between demographic and clinical factors recorded on the survey form with test results.

**Results/Outcomes:** This study is still in progress. To date, approximately 2/3 of the test kits have been distributed.

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**Name:** Katherine Halbach

**Practicum Site:** US Department of State- Bureau of Oceanic and International Environmental and Scientific Affairs- Office of International Health and Biodefense

**Location:** Washington, DC

**Title:** Student Intern

**Introduction:** The Office of International Health and Biodefense at the State Department represents the United States position on health matters in international fora, and assists U.S. diplomatic posts in their health-related activities with foreign governments. The Office promotes effective global health strategies through encouraging strong political leadership on health policy. Policies include environmental health, infectious disease, health in post-conflict situations, surveillance and response, and health security.

**Methods:** For my various tasks, I collaborated with officials from the WHO, CDC, USAID and U.S. embassies to gather information and research on health policies and implementation programs. This included meetings, conferences and training workshops with senior officials from various federal agencies. I was in direct contact with health officers at U.S. embassies who provided me with up-to-date information of collaboration projects on the ground.

**Results/Outcomes:** The research that I conducted, on topics including economic impacts of resistant tuberculosis, counterfeit and substandard medications in Southeast Asia and Arctic health, will be compiled for senior State Department officials to be used in meetings, conferences and trips abroad. My contributions will also be used to train health officers at the embassies, and be used during various awareness and health training programs abroad.

**Name:** Elizabeth Hankinson

**Practicum Site:** Boston University School of Medicine- Amyloid Treatment & Research Program

**Location:** Boston, MA

**Title:** Data Coordinator/Analyst

**Introduction:** This practicum involves data collection and analysis for a retrospective cohort study examining whether physiologic measures captured by Cardiopulmonary Exercise Testing (CPET) predict one year mortality among patients with Primary (AL) Amyloidosis who have undergone high dose chemotherapy and autologous stem cell transplantation (HDC/SCT). HDC/SCT is considered the “gold standard” therapy; however, patients with multi-organ disease are not eligible for this treatment. The goal is to use these data to improve risk stratification and patient selection for treatment.

**Methods:** I worked with a team of physicians to: 1) identify our cohort, 2) collect clinical data, 3) develop a statistical analysis plan, and 4) perform statistical analyses using SAS software. Our primary outcome was the difference in one year mortality among patients with an abnormal versus a normal CPET by Kaplan Meier survival analysis. An “abnormal” CPET was defined as Anaerobic Threshold (AT) < 40% predicted and oxygen uptake (VO<sub>2</sub>max) < 15 L/min/kg.

**Results/Outcomes:** We observed a statistically significant difference in one year mortality among patients with an abnormal versus a normal CPET ( $p=0.0163$ ). The one year risk of death among patients with an abnormal CPET was 43.75% ( $n=7/16$ ) versus 14.29% ( $n=6/42$ ) among patients with a normal CPET (RR=3.06, 95% CI=1.21 to 7.73). Limitations of this study include available sample size and selection bias. During the next phase we will expand the population under study to include all AL amyloidosis patients who underwent a CPET, regardless of treatment regimen.

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**Name:** Arpita Husain

**Practicum Site:** Tufts University School of Medicine- Department of Public Health and Family Medicine

**Location:** Boston, MA

**Title:** Data Analyst

**Introduction:** I conducted data analysis using SAS on the Community Assessment of Freeway Exposure and Health (CAFEH) Study. The purpose of the CAFEH is to analyze the association between exposure to air pollutants such as Ultrafine Particulate Matter (UFPs) emanating from highway traffic and cardiovascular health measured as biomarkers of systemic inflammation (i.e. C-Reactive Protein, Interleukin-6) in three communities residing around Interstate-93. The study had completed data collection phase for two of three communities (Somerville and Dorchester/Sth. Boston) and had a sample size of 450, of which 269 have provided blood samples. Preliminary data analysis revealed a strong association with proximity to highway and Body Mass Index (BMI).

**Methods:** I studied the Somerville and Dorchester populations and analyzed BMI as an outcome variable through linear and logistic regression analysis, while adjusting for potential confounding and interaction through multi-variable models. All statistical analyses were conducted using SAS.

**Results/Outcomes:** The projected outcome is to create a model with BMI as an outcome with several predictor variables. Crude results indicated that there was not a strong association with proximity to the highway and Body Mass Index, but further data analyses need to be conducted.

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**Name:** Geetika Kalloo

**Practicum Site:** Boston University School of Public Health- Department of Epidemiology

**Location:** Boston, MA

**Title:** Understanding Vaccine Uptake Amongst Cancer Survivors Identified in the 2009 Behavioral Risk Factor Surveillance System

**Introduction:** Cancer survivors are at increased risk for infections such as influenza and pneumococcal disease. Despite this, utilization of influenza and pneumococcal vaccines is lower than targeted levels.

**Methods:** We abstracted data from the 2009 U.S. Behavioral Risk Factor Surveillance System (BRFSS) survey to compare influenza and pneumococcal vaccine uptake in adult cancer survivors to respondents with no history of cancer. Logistic regression was used to estimate adjusted prevalence ratios and 95% confidence intervals (CI) between prior cancer diagnosis and receipt of influenza vaccine, pneumococcal vaccine, or both.

**Results/Outcomes:** Among 411,654 BRFSS respondents, 2.5% reported a prior cancer diagnosis, 37.4% reported having received an influenza vaccine in the past 12 months, and 22.9% reported having received a pneumococcal vaccine. Compared with respondents with no history of cancer, cancer survivors were 1.2 (95% CI 1.1-1.4) times as likely to have received an influenza vaccine, 1.5 times (95% CI 1.3-1.7), as likely to have received a pneumococcal vaccine, and 1.5 (95% CI 1.3-1.7) times as likely to have received both vaccines. Although adult influenza and pneumococcal vaccination remain below targeted levels, cancer survivors report having received these vaccines more often than adults without cancer.

# EPIDEMIOLOGY

**Name:** Jessica Kerr

**Practicum Site:** Boston Medical Center- Department of Radiology

**Location:** Boston, MA

**Title:** Research Assistant

**Introduction:** As part of a research team in the radiation oncology unit of Boston Medical Center, I assisted in a study reviewing and analyzing the impact of race, primary language, marital status, and insurance type on incidence of mortality in breast and prostate cancer at BMC. The goal of the study was to document the impact of these factors on mortality in order to bolster policy and guidelines which would reduce or eliminate these disparities.

**Methods:** I assisted in developing and cleaning a database of 1968 breast and prostate cancer patients diagnosed at BMC and evaluated between 8/1/2004 – 10/1/2011. I served as the primary biostatistician and performed basic summary statistics on the dataset as well as performed correlation tests between the variables, chi-squared tests, and multivariate regression analyses using SAS. I analyzed the results and assisted in the write-up of the data results to be presented at an AMA conference in early November.

**Results/Outcomes:** There was a significant difference in mortality for breast and prostate cancer patients related to race, insurance type, and marital status. There was no significant difference in mortality found related to language. Further multivariate analyses need to be performed in order to account for any confounders, effect modifiers, and any interaction variables in predicting mortality. This research aims to identify disparities in cancer care at BMC in order to identify factors that can reduce these disparities using policy and revised guidelines.

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**Name:** Natalie Kratz

**Practicum Site:** Support for International Change

**Location:** Arusha, Tanzania

**Title:** Baseline Data Analysis and Evaluation Template Development for the Community Health Worker Program

**Introduction:** Support for International Change (SIC), based in rural villages in northern Tanzania, offers a comprehensive set of community based services to combat HIV/AIDS, including a Community Health Worker (CHW) Program. CHWs provide a range of services to HIV+ patients, including drug adherence counseling and assistance in obtaining antiretroviral therapy (ART) when needed. CHWs collected baseline data for an evaluation of patients during 2011, using a combination of paper surveys and Short Message Service (SMS) text messaging directly to the patient database. They collected information on demographics, medication and adherence, healthcare utilization, CD4 counts, and births and pregnancies.

**Methods:** I cleaned the data of duplicates and linked the survey data with other datasets to obtain more patient information. I created an Excel workbook containing tables that auto-populated after dropping in data. I summarized the baseline data in the form of a report, highlighting potential areas of improvement within the CHW program and data collection. I documented the process for data cleaning and updating the workbook. After collecting data again, SIC can use the workbook to compare results to the baseline.

**Results/Outcomes:** There were significant issues with the data, including skipped questions and inconsistencies in cross-checks with other datasets. Analysis of the data showed that most patients had access to medical care and medication. There is a need to increase frequency and documentation of CD4 counts and, in some areas, adherence to ART. The workbook should be used the next time surveys are completed to determine if these trends have improved.

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**Name:** Gina Lee

**Practicum Site:** Boston Medical Center/Boston University School of Public Health- Emergency Department

**Location:** Boston, MA

**Title:** A qualitative examination of patient refusal of emergency department rapid HIV testing

**Introduction:** HIV Counseling, Testing, and Referral (CTR) staff in the emergency department (ED) at Boston Medical Center (BMC) provides rapid HIV testing to patients who otherwise lack regular access to health care and may have higher risk for infection. UNTESTED, is a quantitative and qualitative research study evaluating whether patients who decline testing do so because they feel they are not at risk or because they do not want to know the results.

**Methods:** For my practicum, I participated in all aspects of UNTESTED for five months. Specifically, I assisted with patient recruitment and interviewing, and I learned how to code participants' responses on major themes regarding HIV knowledge, personal perceptions, and social stigmas. I also participated in team meetings with heavy emphasis on discussion and trouble-shooting systems-issues negatively impacting successful recruitment and interview completion.

**Results/Outcomes:** Currently, 27 participants have been interviewed among a target of 30. Of these, I have conducted two telephone and two in-person interviews. As recruitment is almost finished, response coding is underway, and analysis is forthcoming. We hope future analyses will help us to learn more about why patients at BMC decline HIV testing as related to the following factors: process of test offer, reaction to counselors, reaction to environment, role of initial ED visit, and participant's awareness of HIV. In-depth analyses of subjects' reasoning for refusing HIV testing will have policy implications for improving and enhancing testing implementation and interventions at BMC.

**Name:** Emily Maple

**Practicum Site:** Boston Medical Center- Section of General Internal Medicine - Clinical Addiction Research and Education (CARE)

**Location:** Boston, MA

**Title:** CARE Unit Intern

**Introduction:** Unhealthy drug use exacts a heavy toll on public health in terms of healthcare utilization, chronic mental and physical health problems, and violence. Effectively identifying individuals at risk remains a challenge. With the Clinical Addiction Research and Education Unit at BMC, we tested the validity of a novel screening approach screening for unhealthy drug use among primary care patients.

**Methods:** Using a cross-sectional study design, we screened 216 primary care patients to validate a self-administered single-item screening questionnaire (SISQ) that asks about past year drug use and a heavy drinking SISQ. After completing the self-administered portion on a computer tablet, patients completed an interviewer-administered reference standard. Data were then cleaned, and sensitivity and specificity of the self-administered SISQ and alcohol SISQ calculated.

**Results/Outcomes:** As in previous studies of interview administered SISQs, we found the self-administered drug SISQ both sensitive [0.79 (95% CI: 0.67, 0.88)] and specific [0.89 (95% CI: 0.83, 0.94)] for detection of unhealthy drug use. Sensitivity and specificity for drug dependence were 0.93 (95% CI: 0.77, 0.99) and 0.78 (95% CI: 0.71, 0.84), respectively. While the alcohol SISQ detected some unhealthy drug use, its sensitivity was low (0.58 [95% CI: 0.45, 0.70]). This project has the potential to eventually provide an efficient and effective screening tool for primary care. The findings in this project show that implementation of a self-administered SISQ could significantly help healthcare workers to identify patients in the primary care setting who may be candidates for further screening or brief intervention.

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**Name:** Gabrielle Purcell

**Practicum Site:** Massachusetts General Hospital- Department of Emergency Medicine

**Location:** Rukungiri, Uganda

**Title:** Program Coordinator

**Introduction:** The Initiative to End Childhood Malnutrition (IECM) is a malnutrition treatment and prevention program of Massachusetts General Hospital, Harvard College, and Karoli Lwanga Nyakibale Hospital in Rukungiri, Uganda. From May - August 2012, I assisted the IECM in Rukungiri to complete market research, develop a business model, and begin implementation of a social enterprise based on IECM's outpatient malnutrition care model in efforts to fund the costs of inpatient treatment at Nyakibale Hospital for severely malnourished children under 12.

**Methods:** I worked as part of a team to interview local business owners and government officials, microfinance institutions, non-governmental organizations, women's groups, mothers of the malnourished patients, and hospital administrators to identify profitable and feasible options for IECM's financial sustainability. We used this information to create a business plan to cover the costs of patient care on the malnutrition ward at Nyakibale Hospital and diversify household income among the families of IECM's malnourished patients through the purchase and sale of high quality crafts made by the mothers of the outpatients enrolled in IECM. I was responsible for initiating the first phase of the proposed plan by meeting with IECM nurses and administrators to ensure hospital buy-in, determining logistics for supply chain and training, commissioning sample crafts, and meeting with potential craft buyers in the Southwest region and Kampala.

**Results/Outcomes:** IECM will continue implementing the social enterprise model we created for one year. This social enterprise is expected to

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**Name:** Caroline Smith

**Practicum Site:** Dana Farber Cancer Institute- Survey and Data Management Core

**Location:** Boston, MA

**Title:** Data Assistant

**Introduction:** The Survey and Data Management Core, housed within the Center for Population Sciences at the Dana-Farber Cancer Institute, is dedicated to the implementation of rigorous quantitative and qualitative research. Activities within The Survey and Data Management Core include the development and implementation of research projects, the development of complex databases, and other similar projects. Many different projects take place at the same time, but all projects are dedicated to exploring cancer risks and ways to reduce those risks through effective interventions.

**Methods:** This practicum involved creating an electronic data capture system for a new patient survey to be used as part of an economic impact study at The Dana-Farber Community Cancer Care Clinic. The electronic data capture system was created using REDcap, a browser-based software solution and workflow methodology for designing clinical and translational research databases. The Dana-Farber Community Cancer Care Clinic at Whittier Street Health Center helps patients in the Roxbury community make a smooth transition to treatment at Dana-Farber/Brigham and Women's Cancer Center. Every two weeks, one member of a rotating group of five Dana-Farber oncologists spends a day in the Whittier clinic.

**Results/Outcomes:** The new patient survey is currently being pilot tested at the Whittier clinic in Roxbury. It collects in-depth patient information including medical history, home life, current symptoms, activity status, quality of life, exposure status, and background/ family information. The results of this study will help determine the economic impact of sending oncology specialists to the Whittier clinic.

# EPIDEMIOLOGY

**Name:** Vanessa Therrien  
**Practicum Site:** Town of Abington- Health Department  
**Location:** Abington, MA  
**Title:** Massachusetts Board of Health Intern

**Introduction:** The mission of the Department of Public Health in Abington, Massachusetts (AHD) is to protect, preserve and promote the health and well-being of all Abington residents. The AHD implements Massachusetts General Laws for public health, enforcing health codes and regulations to promote a healthy community.

**Methods:** I worked with the AHD Director to organize and implement two seasonal flu clinics for senior residents and town employees. The Influenza Virus Vaccine Fluvirin 2012-2013 formula was provided by the State of Massachusetts and free clinics were advertised throughout town. During scheduled clinics, medical information (name, date of birth, and health insurance information) was collected. Forms were processed and sent to the UMass Medical School's Commonwealth Medicine division which provided reimbursement for contracted nurses administering the vaccine. All body art/piercing establishments within Abington underwent annual inspection and were evaluated on all AHD required body art regulations under the Authority of Massachusetts General Law. Following evaluation, a 'Board of Health Tattoo Apprenticeship Task Sheet' and a notice of 'Establishment License Renewal for 2013' was created and sent to all establishments.

**Results/Outcomes:** The two influenza clinics successfully provided 145 Abington residents with vaccines to reduce 2012-2013 influenza incidence. Medical information is being processed to obtain reimbursement for contracted nurses. Inspection of all three body art establishments within Abington revealed instances of improper record-keeping, inconsistent completion and/or renewal of practitioner certifications, and incomplete sterilization tests. Each establishment was issued a verbal warning and must provide requested deliverables by December 1st, 2012 to receive 2013 licenses.

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**Name:** Sharon Touw  
**Practicum Site:** DM-Stat, Inc.  
**Location:** Malden, MA  
**Title:** Intern, Fetal Alcohol Spectrum Disorders (FASD) Project

**Introduction:** The Prenatal Alcohol in SIDS and Stillbirth (PASS) Network, a research collaborative established to investigate the role of prenatal alcohol exposure in adverse pregnancy outcomes, conducted a pilot study to build infrastructure and assess the feasibility of following a larger cohort to determine the possibility of earlier diagnosis of Fetal Alcohol Syndrome (FAS) and Fetal Alcohol Spectrum Disorders (FASD).

**Methods:** Recruitment and follow-up was conducted in Cape Town, South Africa. In Phase I, 95 pregnant women were enrolled and followed through their child's first year of life. These children were eligible for participation in the FASD follow-up study. As a part of the follow-up study, toddlers were evaluated at 18, 21 and 24 months using a variety of tools including: physiological measures, anthropometrics, neurobehavioral assessments, and photographs to assess facial dysmorphology. Prenatal alcohol exposure and potential modifying factors collected in Phase I were combined with the data collected in the FASD follow-up study for analyses.

**Results/Outcomes:** Forty-five children were enrolled in the study. All participants were Cape Coloured (of mixed ancestry) and were enrolled at varying ages. Twenty-one children were enrolled at the 18 months contact, 39 at the 21 months contact and 45 by the 24 months contact. Overall participant compliance was 73% and overall visit compliance was 53%. Visit compliance was 95% (20/21) at 18 months, 74% (29/39) at 21 months and 62% (28/45) at 24 months; 93% of participants had at least one postnatal contact. Analysis of the dysmorphic, physiologic and neurobehavioral assessments is ongoing.

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**Name:** Abigail Williams  
**Practicum Site:** Tufts Medical Center- Cost Effectiveness Analysis Registry  
**Location:** Boston, MA  
**Title:** The Center for Evaluation of Value and Risk in Health

**Introduction:** An important aspect of clinical and political decision-making is the relationship between cost and effectiveness, and in particular the measurements that define this relationship. The Center for Evaluation of Value and Risk in Health (CEVR) at Tufts Medical Center evaluates information on the benefits, risks, and costs of strategies to improve health and healthcare. In addition to research and publications, CEVR operates a database of cost-utility analyses published in peer-reviewed journals worldwide. These analyses often involve hypothetical cohorts using decision analysis models; namely Markov or decision trees, which include disease states and state transition probabilities for the purpose of evaluating intervention performance. The Cost Effectiveness Analysis (CEA) Registry allows researchers to easily obtain information on incremental cost-effectiveness ratios, utility weights of various disease states, and other health economics information.

**Methods:** As the Health Economics intern, I reviewed articles for inclusion in the Registry by evaluating the accuracy and quality of the cost-effectiveness measurements used in analysis. I collected data on methodology (perspective, intervention type, sensitivity analyses, discounting), ratios (population, intervention and comparator), and utility weights used in cost utility analyses. I also helped pilot new forms for the data extraction process.

**Results/Outcomes:** The Registry requires constant updating as it is widely used by health policy decision-makers, and my contributions to CEVR advanced this objective. My exposure to cost-effective analysis literature inspired me to further examine the process behind Markov modeling and to attempt to re-create my own model in the context of a public health problem of my interest.



# EPIDEMIOLOGY

**Name:** Ji Xiao

**Practicum Site:** Boston University School of Medicine- Computational Biomedicine

**Location:** Boston, MA

**Title:** Research Assistant

**Introduction:** With a growing number of new emerging tobacco-related products on the market, there is a significant need to evaluate the biological impact of these alternatives. This project (ECIGS) focuses on the E-cigarettes due to the absence of data regarding their potential health effects. The proposal is based on the “field of injury” paradigm where 1) inhaled toxins can alter the gene-expression in epithelial cells lining the respiratory tract and 2) measure these alterations in accessible upper airway cells to provide insight to physiological changes. This will be done through comparative analysis of nasal, buccal and bronchial cells from current, former and E-cigarette smokers.

**Methods:** I reviewed the grant and performed background research on the current findings on E-cigarettes prior to assisting with designing the recruitment protocol. I then verified that all protocols are in sync with the grant’s aims and developed various documents necessary for IRB submission: phone interview script, pre-screening eligibility consent, consent forms for baseline visit, bronchoscopy procedures, and obtaining blood, nasal and buccal cell scrapings.

**Results/Outcomes:** ECIGS is a complex and innovative project; the timeline submitted to getting the approval on the IRB turned out to be less than realistic. An amended IRB application expanding the details of patient recruitment and database variables to permit detailed analysis of potential biomarkers associated with E-cigarette use will be submitted shortly. I will stay involved to recruit participants once it is amended.

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**Name:** Rachel Yorlets

**Practicum Site:** Thornton & Naumes, LLP

**Location:** Boston, MA

**Title:** Research Assistant to the Chief Medical and Science Researcher

**Introduction:** Thornton & Naumes, LLP in Boston, Massachusetts is the largest plaintiff law firm in New England, and focuses on complex litigation and personal injury law. From June through August 2012, I assisted the Chief Medical and Science Researcher at the firm to complete epidemiology and toxicology research relevant to current and potential toxic tort and birth defects cases for the legal team.

**Methods:** As research assistant, I critically evaluated existing epidemiologic evidence to support environmental causation of birth defects in current and potential cases. The majority of the exposures of interest were occupational, male-mediated, or chemical. I compared the results of a wide range of peer-reviewed studies to assess the strength of general support for an association. For legal purposes, I was especially interested in results that had relative risks of at least two and were statistically significant. My specific responsibilities were to create detailed charts comparing epidemiologic study results, synthesis of concise summary reports for each chart, presentation of this information to the appropriate legal teams, answering questions, and following up with more research as requested.

**Results/Outcomes:** My research products from selected cases were used to determine the extent to which cases will be pursued, and most often served as evidence for current litigation. In highlighting the epidemiologic evidence that was legally relevant, I created a portfolio of research that will remain part of a foundation for future research and future related cases.



# HEALTH LAW & BIOETHICS

**Name:** Connie Lo

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

**Location:** Andover, MA

**Title:** Andover Health Division Public Health Intern

**Introduction:** Due to the 2006 Pharmacy Needle Access Law, Andover, a town of 30,000 residents north of Boston, needed a plan to exclude household sharps waste from its solid waste stream. The goal was to develop and implement such a plan to facilitate convenient disposal of household sharps waste by residents.

**Methods:** Working with the Andover Health Division, I contacted demographically similar municipalities with sharps disposal programs to determine the most efficient way of collecting household sharps. Then I contacted local businesses and nonprofit organizations for potential partnerships. I drafted a proposal and budget for the project's first year and presented it to Pfizer. To inform residents about the changes, I wrote an article for the regional newspaper, drafted a press release, designed a flyer, and helped with a kick-off event in association with the Fire Department's open house.

**Results/Outcomes:** One kiosk will be located at the Public Safety Center and one at the Senior Center to facilitate the safe, convenient disposal of sharps by residents. Free-standing sharps collection kiosks were the most efficient way of collecting household sharps but were very costly. Pfizer agreed to pay for the kiosks and other start-up costs such as sharps containers and advertising, but stipulated that the kiosks be located in public locations and that they be allowed to photograph the kick-off event. Sharps containers will be sold by the town to offset the costs of pick-up. Department of Public Works has agreed to incur the remaining pick-up associated expenses.



# HEALTH POLICY & MANAGEMENT

**Name:** Rohan Bakshi  
**Practicum Site:** Veterans' Affairs Boston Health Care System  
**Location:** Boston, MA  
**Title:** Administrative Intern - Director's Office

**Introduction:** The Boston VA Health System is currently implementing an electronic provider performance reporting system, as part of a nationwide initiative by the Central Office. Prior to this project, performance reports for all 900 providers were completed in paper form, using processes that varied from one service to another. The aim of this project is to achieve a fully electronic and uniform process, which can yield strategic data to understand the current levels of physician performance, while protecting sensitive patient data.

**Methods:** Project component include semi-annual performance reports, peer reviews of patient care, and privilege requests. These documents were created in collaboration with hospital leadership, clinical services and the Medical Executive Committee (MEC). This project was initiated by creating service-specific documents that capture appropriate performance and quality of care metrics for all providers in different services. The incumbent and the Chief of Staff Office were tasked to manage these documents, ensure timely performance evaluations and submission to the Professional Standards Board (PSB). These duties have gradually been conferred to service administrators and medical staff office. Additionally, this system is also required to address all deficiencies identified by the process, leading to the generation of an action plan, with accurate follow-up. The incumbent is currently managing timely completion of all performance reports, ensuring PSB approval and continuation of providers' privileges to practice.

**Results/Outcomes:** The current system manages electronic performance evaluation reports for all providers. Most clinical services now have a fully electronic system.

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**Name:** Courtnee Benford  
**Practicum Site:** Community Catalyst  
**Location:** Boston, MA  
**Title:** Engaging Communities and Public Health in Hospital Community Benefit Program Planning and Evaluation

**Introduction:** Community benefit programs are not only a reporting requirement for non-profit hospitals, but also a way for hospitals to improve access to and overall health of their communities. The IRS's new requirements around community benefit provide an opportunity for both public health and communities to engage in hospital community benefit planning and evaluation. This positions the public health community to step into a partnership role that are more like grassroots and grassroots civic and community organizations, yet it's our view that communities themselves should be engaged in defining the areas for improvement and assets in their neighborhoods and coming up with solutions. Unfortunately, communities are often left out of the conversation.

**Methods:** How can we better connect communities to public health and hospital professionals? How do we support communities to be engaged in working with public health data and thinking about solutions in the context of community benefit?

**Results/Outcomes:** To answer these questions, I have researched and reviewed existing community engagement tools around community benefit, created a website and glossary for health equity to ensure vulnerable communities are included in these conversations, updated the website to reflect current changes in the law and new audiences, and drafted background materials needed for initial curriculum, presentation materials, and train-the-trainers guide. Various writing projects, including Fact Sheet: Protecting Communities of Color During Medicaid Cuts, were created to help communities share in a vision of health equity where everyone has a fair opportunity to achieve their full health potential.

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**Name:** Angela Caggianelli  
**Practicum Site:** South End Community Health Center- Quality Improvement  
**Location:** Boston, MA  
**Title:** Patient-Centered Medical Home Empanelment Coordinator

**Introduction:** The South End Community Health Center (SECHC) is one of over 40 statewide sites participating in the Massachusetts Patient-Centered Medical Home Initiative (PCMHI), sponsored by the Executive Office of Health and Human Services (EOHHS), to prepare for the impending changes and challenges in the delivery of primary care. The foundation of a successful PCMHI is empanelment, whereby patients are accurately assigned to a Primary Care Physician (and team) who establishes the physician-patient relationship, ensuring continuity of care over time. Empanelment is more challenging in the community health center setting considering the complex needs and low socioeconomic status of the majority of the patient base as well as lacking operational resources. Although SECHC has been participating in PCMHI for over a year, the empanelment step was never completed.

**Methods:** A UMASS database expert was recruited to create a report on current empanelment status. From this report, the amount of unassigned, wrongly assigned as well as patients who needed to be reassigned to a different PCP was determined. Each provider panel was scrubbed and balanced according to PCMHI weighting standards. Policies and Procedures were created regarding how to determine original assignment and re-assignment of patient panels.

**Results/Outcomes:** The clean panels will be manually entered into the new practice management system by the Patient Services staff in early December. The policies and procedures are also expected to receive approval at this time. Both of these efforts will ensure accurate panels are sustained across the health center going forward.

# HEALTH POLICY & MANAGEMENT

**Name:** Matthew Dalton

**Practicum Site:** Dana Farber Cancer Institute- Quality Improvement/Risk Management

**Location:** Boston, MA

**Title:** Reducing Pick-Up Window Errors in the Outpatient Pharmacy Department at Dana-Farber Cancer Institute

**Introduction:** The Outpatient Pharmacy Department (OPD) experienced a five-fold increase in medication dispensing errors at the pick-up window within a four-month stretch earlier this year. Errors occurred with different staff and there had been no process changes. The department had been experiencing a steady increase in volume since moving to the Yawkey Center in 2011. Although there were no adverse events associated with these errors, the significant increase in dispensing errors posed a significant threat to patient safety. The goal of the project was to reduce medication-dispensing errors to the previous rate, focusing on the process of when the pharmacist handed off the medication to technicians and then given to the patient.

**Methods:** Fishbone Diagram: To better understand the key factors that led to the increase in dispensing errors; Patient Satisfaction Surveys: To gain a better understanding of the current environment in the OPD such as patient attitude, wait-time expectation, and other possible barriers; Time Study Analysis: To determine compliance at the pick-up window and identify surrounding factors that prevented an ideal transaction; Data Collection: To establish rates of misplaced prescriptions, label visibility, waking distance, and tracker issues.

**Results/Outcomes:** In terms of compliance with standard operating procedure at the pick-up window, confirming the number of prescriptions increase from 71% to 80%, using the tracker increased from 88% to 92%, and bottle examination increased from 33% to 60%. Overall, the chance of an ideal transaction increased from 16.1% to 32.5% (when student and internists were excluded it actual figure was 57.6%).

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**Name:** Amy Dippolito

**Practicum Site:** San Francisco Suicide Prevention- Administrative Department

**Location:** San Francisco, CA

**Title:** Using Community-based Outreach Techniques to Implement a Homeless Program, Understand the Functionality and Operations of a Non-Profit Organization

**Introduction:** The Outreach Department at San Francisco Suicide Prevention (SFSP) noticed it was having issues with maintaining relationships with other community health centers. The goal of this project was to evaluate the department's current approach to community outreach, thereby implementing new strategies to enhance outreach success. The organization provides outreach to wide-range of demographics, except the homeless. About 6,500 homeless live in SF. My personal goal was to implement a homeless outreach program since the organization did not have one.

**Methods:** First, I conducted research on target populations and created reports based on suicide prevalence and needs assessments. Then, I managed and maintained databases for existing populations and for homeless. For homeless program implementation, I created a report detailing projected deliverables and interventions for me to follow during my 3 months there. It also included approaches to sustain the homeless program over a one-year, three-year, and six-year time period for interns to follow. I spent weeks visiting agencies to provide trainings and disseminate pamphlets. As for implementing the homeless program, I established relationships with organizations such as HOPE SF and politician, Bevan Dufty.

**Results/Outcomes:** Spearheading this program resulted in established relationships that SFSP did not previously have. To implement an outreach program, extensive research, time, and tenacity must exist. It also requires systems thinking and a strategic systems-wide approach. The establishment and maintenance of relationships is key in trying to implement change that had not previously existed. Also, I became certified in Applied Suicide Intervention Skills Training (ASIST).

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**Name:** Caitlin Farrell

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

**Location:** Boston, MA

**Title:** Health and Wellness Intern

**Introduction:** The bWell Center of the Department of Pediatrics provides a unique patient-centered approach to healthcare. The bWell Center aims to address the support gap in health care services through education, social support, and networking to local resources. The purpose of this practicum was to increase the Center's educational resources through the development of comprehensive health wellness guides in collaboration with health care experts. The goal of the wellness guides is to educate and empower patients with health information and connections to local supports.

**Methods:** In order to develop patient-centered, accurate wellness guides on autism, development, and insurance, key interviews were conducted with experts in each field. These guides sought to develop culturally competent information, synthesize an array of information for easy navigation, network to local resources, and increase quality and satisfaction of healthcare services.

**Results/Outcomes:** Through patient interactions, the bWell Center will use these wellness guides to enhance the patient experience and address gaps in knowledge. These guides will provide additional support outside the physician office, and help to increase treatment outcomes with additional support and resources.

# HEALTH POLICY & MANAGEMENT

**Name:** Jessica Golden

**Practicum Site:** Management Sciences for Health

**Location:** Cambridge, MA

**Title:** Strengthening Pharmaceutical Systems: Supply Chain Management and Pharmacovigilance

**Introduction:** CPM works to improve health worldwide through enhancing access to, and improving the use of, essential medicines and other healthcare products. The Strengthening Pharmaceutical Systems (SPS) program within CPM receives funding from the USAID to work with countries in order to strengthen their existing pharmaceutical systems. I worked with the SPS Ukraine program to address pharmaceutical management issues regarding the management of antituberculosis and antiretroviral therapy-related medicines and commodities; specifically issues regarding supply chain management. I also worked on an assessment of pharmacovigilance practices in Asia.

**Methods:** I worked with the Ukraine Monitoring and Evaluation Team in Washington, DC to research and identify key relevant supply chain management indicators for tuberculosis and HIV/AIDS medicines. I identified supply chain indicators through a literature review, tracked them using an excel spreadsheet, and then mapped the indicators to a survey of pharmaceutical management practices at tuberculosis and HIV/AIDS facilities in Ukraine. The pharmacovigilance assessment was conducted through a desktop review of 175 documents. This review focused on 14 topics and six countries.

**Results/Outcomes:** The State Service in Ukraine will send the questionnaire to regional-level TB and HIV/AIDS facilities. The data collected from these surveys will then be analyzed using the indicator analysis plan; the indicators are based on my research. This analysis will provide baseline data of pharmaceutical management practices at regional-level facilities and identify gaps in the system. The pharmacovigilance assessment will be used to identify gaps in the body of knowledge on current status of pharmacovigilance in Asia.

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**Name:** Matthew Hollister

**Practicum Site:** University of Massachusetts Medical School- Department of Quantitative Health Sciences

**Location:** Boston, MA

**Title:** Focus on Diabetes Project Coordinator

**Introduction:** The project is a study of the effectiveness of Value Based Insurance Design (VBID) on diabetic medications. Specifically we were interested in whether lower copays for diabetic medications would improve both uptake (starting new medications) and adherence (taking medications as prescribed) and result in long-term reduction in diabetes treatment costs. Our study design was a prospective cohort design where a large employer implemented the VBID and controls were provided by other employers covered by the same insurance company. My role was to coordinate with the Focus on Diabetes (FOD) team members to review the data, develop rules for the statistical analysis, and edit the draft research paper.

**Methods:** The FOD team collected prescription drug and medical claims data from the insurance plan for a period of 7 years (2 years before the VBID intervention and 5 years post). My initial task was to work with the project biostatistician to ensure that the data was sufficient to perform the study's calculations. I was also involved with developing the rules for calculating adherence and I performed a review of current academic literature that supported our hypothesis.

**Results/Outcomes:** The FOD project was still in process when I left the department. Although I did not get to the stage of calculating results, I learned a lot about research design and the many issues that can come up to hinder the process.

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**Name:** Farah Jooma

**Practicum Site:** Boston Medical Center - Division of Pediatrics-Adolescent Medicine

**Location:** Boston, MA

**Title:** Quality Improvement in the Pediatric Outpatient

**Introduction:** The pediatric outpatient clinic at Boston Medical Center has expressed concerns with lengthy patient visits, decreased patient turnovers, and the overall function of the clinic. Therefore, the primary goal is to decrease patient wait times and increase the efficiency of the clinic all without compromising the care provided. We looked to accomplish this by using the quality improvement tool, PDSA cycles. This allows us to run trial interventions on a small scale while balancing measures that could be negatively affected.

**Methods:** I began by collecting data to identify how long well child check visits were lasting, and what was the most time-consuming step. I accomplished this by following physicians in the clinic and using electronic medical records. One rate-limiting factor that was identified was physician lack of familiarity of the supporting staff. To address this, we began a picture board that labeled each team of physicians, nurses, and provider's assistants working together that day. We also initiated pre-clinic huddles during which the team would get together and prepare for the day.

**Results/Outcomes:** By identifying time consuming steps and areas of improvement, we hope to decrease the total time patients spend in the clinic by twenty percent, or to put it numerically, from 71 minutes to 57 minutes. The goal is to provide a safe route to decrease wait times, increase turnover so that doctors are able to see more patients, and improve communication between physicians and supporting staff.

# HEALTH POLICY & MANAGEMENT

**Name:** Clement Lee

**Practicum Site:** Massachusetts Health Insurance - Health Connector Authority

**Location:** Boston, MA

**Title:** Massachusetts Health Connector Intern

**Introduction:** The objective of the project in FY12 is to create a Commonwealth Care and Choice member profile while keeping in mind changes that will be brought by ACA in 2014. The goals of this research are to better understand Connector's existing and prospective individual and small business customers in order to grow business, retain members and educate the public about the opportunities available through the Health Connector. This research will also be used to better understand product selection, communication preferences, technology, demographics, benefit option/choices, eligibility, cost, decision support, as well as other areas that will help us further identify and understand our target markets and their experience of shopping with the Connector.

**Methods:** Analyze the available member data for the previous 4 years, using data points available to both programs to find similarities and differences between the two program populations and present in a user friendly format in the interest of gaining greater perspective on members' behaviors, demographics and ways in which we can continue to better serve them.

**Results/Outcomes:** The final report will be used to better understand the two populations and to determine how to best serve the Exchange population in 2014 using the experience gained by the Connector while operating Care and Choice programs. In addition to being shared with internal stakeholders at the Connector and continues to be used to inform policy and operational decisions.

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**Name:** Ashley Mann

**Practicum Site:** Boston Medical Center- Forensic Medical Evaluation Group

**Location:** Boston, MA

**Introduction:** The Forensic Medical Evaluation Group (FMEG) consists of physicians at Boston Medical Center who specialize in conducting Forensic Medical Evaluations on patients who are seeking asylum due to ill-treatment in their home countries. The physicians examine the patient for medical signs that may support a claim for asylum status. The project works with lawyers to complete documentation for immigration claims.

**Methods:** Creating a strategic plan and running the operations of the FMEG were the main focuses. Research was gathered to create a strategic plan to assist the FMEG to grow; the plan was created with input from the FMEG's founders.. Additionally, the creation of a database to measure the FMEG's past work was created; this assists the FMEG to analyze trends in its patients, and market to funders and stakeholders.

**Results/Outcomes:** Data collection is still underway; however, it is becoming evident that the clinic has worked with high numbers of patients seeking asylum from both Cameroon and Uganda. Improved clinic operations have been established, for example an easy to use database of the clinic's legal partners was created. Strategic Planning is still in process but has been able to locate potential funding sources, as well as strategic direction for the FMEG to take in order to fulfill its goal of expanding its scope into documenting domestic ill-treatment.

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**Name:** John Murphy

**Practicum Site:** Massachusetts General Hospital- Department of Psychiatry

**Location:** Boston, MA

**Title:** Administrative Manager Adult Operations- MGH Psychiatry

**Introduction:** As Administrative Manager for the Electroconvulsive Therapy (ECT), Acute Psychiatry Services (APS), and the Consult Services (CS) it is my position's responsibility to ensure all aspects of the authorization, scheduling, patient movement, reimbursements, appropriate technical support, and long-term planning are occurring in a unified and efficient manner.

**Methods:** ECT and CS-in the process of hiring a Practice Manager to provide oversight and support. While interviews remain ongoing, we have moved to reduce the stress to the ECT system by bringing all stakeholders together to outline a trial 6 week Saturday ECT service to decannulate the volume onto more days and also to open up inpatient beds on the week. CS-I have been working closely with the admin staff to review the authorization process and have defined the process and provided her with direct support from Billing for problem accounts in order to pro-actively manage. APS-we moved the Care Coordinators shifts to a full-time format which opened a weekend only position-starting 12/10-to ensure continuity of services through the weekend to avoid patient log jams come Mondays. In addition, through the use of volume data, the Medical Director and I demonstrated the need for an additional evening attending-search underway.

**Results/Outcomes:** APS-Increased staffing to support growing volume; will be transitioning to new physical space 1.13. ECT- Potential increase in operational efficiency by providing weekend service. Consult Services-Defined authorization process to reduce loss revenue. ECT & CS: Ongoing search for manager to provide support and identify priority improvement areas.



# HEALTH POLICY & MANAGEMENT

**Name:** Dhara Patel

**Practicum Site:** Veterans' Affairs Boston Health Care System

**Location:** Boston, MA

**Title:** Veteran's Engineering Resource Center Intern

**Introduction:** The New England VERC uses systems engineering to improve processes and performance across the region's VA Hospitals and also collaborates on national level projects. I worked on two improvement projects, one internal and one external. The first project improved the management of resident schedules for a neurology clinic. The internal project involved streamlining the VERC program budget that had been tracked using multiple Excel spreadsheets.

**Methods:** The existing process for resident scheduling communication was identified through shadowing and staff informational interviews. Stakeholder concerns for difficulty in resident management was also collected. The budget tracking process was improved through analysis of existing spreadsheets and reporting needs. Using this information, a single master template including multiple linked spreadsheets and automated calculations and summaries was created.

**Results/Outcomes:** An online dashboard was created for the neurology clinic to display resident schedules. This reduced the time needed to go through multiple paper documents that were often not updated and inaccurate. Administrators and residents are now better able to communicate schedule changes ensuring reduced patient wait times that occurred previously. The master budget workbook now contains several spreadsheets that are linked making budget reporting more automated.



# INTERNATIONAL HEALTH

**Name:** Kara Allard

**Practicum Site:** Cameroon Baptist Convention Health Board

**Location:** Bamenda, Cameroon

**Title:** Research Assistant

**Introduction:** The CBCHB runs 5 hospitals, 24 integrated health centers, 50 primary health centers and a pharmaceutical plant. The CBCHB strives to provide quality healthcare services for its patients. By having a performance measurement tool, administration can see which areas are working well, where there are bottlenecks, and alter practices to improve healthcare delivery. The focus of the project was quality improvement via creating a performance measurement tool. This occurred over a two month period in country with continued work over the following six months. The team analyzed clinical and cross-cutting hospital domains of which I focused on pharmacy and supply chain. Understanding these hospital service practices in a low resource setting allows the team to create a targeted instrument to measure and analyze performance.

**Methods:** For this project I spent time doing observation, process mapping with a counterpart and creating powerpoint presentations from those maps, and focus group discussions. We worked with four hospitals, spending a week at each location. I helped create eight process maps, participated in four focus group discussions, and completed over sixty hours of observation. By using process maps and understanding patient flow I was able to work on the beginning stages of instrument development.

**Results/Outcomes:** The project outcomes include a measurement tool and manual for using the tool describing the process of performance measurement. It will be used to improve the quality of services at CBCHB hospitals. The process mapping, observation, and discussions that shaped the tool will drive the quality improvement goals of CBCHB administration.

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**Name:** Julie Anathan

**Practicum Site:** l'Hôpital St. Nicholas

**Location:** St. Marc, Haiti

**Title:** Nursing Educational Curriculum Coordinator

**Introduction:** L'Hôpital St. Nicholas (HSN) is a 150-bed public hospital located in St. Marc, Haiti. HSN has had long-term struggles with nursing shortages due to a lack of accredited nursing schools (one of which was destroyed in the 2010 earthquake) and migration to better paying jobs and working conditions. As a result, nurses at HSN struggle to provide quality patient care. In 2011, Partners In Health, and their Haitian sister organization, Zanmi Lasante (ZL), received a grant from the Clinton Bush Haiti Fund to support nursing education at HSN. This grant provided for two Clinical Nurse Educators (CNE) to be hired. The practicum goal was to help the CNEs develop a one year nursing educational curriculum.

**Methods:** I developed a Prioritization Matrix to assess and prioritize educational needs. I spent approximately 1 week on each of the five units (surgery, emergency, internal medicine, pediatrics, maternity), and together with the CNEs, we interviewed nurses, charge nurses, doctors and patients. We then prioritized needs by frequency, importance, feasibility and cost and developed a 12 month educational calendar of training needs.

**Results/Outcomes:** In October, the CNEs provided the first training program on Nursing Professional Ethics. A reported 85% of nurses and nursing students attended. In November the CNEs will be providing a training program on Medication Administration. Moving forward, the CNEs will continue to follow the training calendar we developed to address educational needs and improve clinical care.

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**Name:** Priyanka Beareilly

**Practicum Site:** Boston Medical Center- Department of Obstetrics and Gynecology

**Location:** Bali, India

**Title:** Student Research Assistant in the Evaluation of Cervical Cancer Prevention Programs

**Introduction:** As a research assistant, I investigated the apparent lack of effective cervical cancer prevention programs in Bali, where cervical cancer rates are high. I researched the programs that are currently supposed to be operating as well as other foundations that would be interested in supporting the improvement of cancer prevention. After setting up meetings with certain officials and program directors one of the co-project leaders discovered many of the reasons for the failure of previously implemented programs. Some include lack of equipment, lack of administration, and inability of trained personnel to confidently perform the procedures. As a next step, we have created the Indonesian Cervical Cancer Prevention Initiative (Indocerv). The project co-leaders will have administrative roles as well as the responsibility of training the medical personnel. The objective is to gain further support from other health organizations to ensure that the establishment of these new programs can be effective and sustainable.

**Methods:** I performed background research on the pathological basis of cervical cancer, its treatment options, its epidemiology in relation to Bali, and current efforts addressing the issue. I will continue working on grant proposals in order to gain support from possible donors.

**Results/Outcomes:** The official establishment of the Indocerv project, development of its website, and gain of local support from organizations in Bali. Upon grant proposal acceptance, a branch of the program can be set up in one location initially and evaluation of that program will aid in the program implementation in other locations.

# INTERNATIONAL HEALTH

**Name:** Nancy Brady

**Practicum Site:** Accordia Global Health Foundation, Infectious Diseases Institute

**Location:** Kampala, Uganda

**Title:** Research Associate

**Introduction:** Uganda's maternal mortality ratio (MMR) is 310/100,000 live births. The Infectious Diseases Institute is the implementing partner on the Saving Mothers, Giving Life (SMGL) program in Kibaale, Uganda, supported by the Centers for Disease Control. SMGL's goal is to reduce maternal and neonatal mortality by 50% through activities aimed at improving obstetric services in government health centers. Activities included maternal clinic and theatre renovation, healthcare worker recruitment, training and mentoring, equipment and drug supply procurement, developed emergency transport referral system, conducted Village Health Team Trainings and facilitated community mobilization.

**Methods:** My responsibilities included chronicling and documenting program SMGL activities. This included over twelve interviews with clinical staff, Village Health Teams and pregnant mothers to identify barriers. I also provided photographic documentation for external communications. A literature review of maternal health initiatives in two African countries was conducted which supported technical guidance. I represented IDI at monthly implementing partner meetings. Finally, I provided general administrative support to both the communication and training team.

**Results/Outcomes:** Funding has been extended until June, 2013. Although activities were temporarily suspended in August 2012 due to an Ebola outbreak in the Kibaale district, a preliminary data assessment suggests a reduction in maternal deaths. Four health center IVs and Kagadi Hospital are fully functioning and providing comprehensive EmOC, though staffing of frontline healthcare workers in the rural district continue to remain a challenge.

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**Name:** Emilia Cain Harari

**Practicum Site:** Comision Nacional de Proteccion Social en Salud Mexico- Seguro Popular

**Location:** Mexico City, Mexico

**Title:** Data Analysis and Report Writing at Seguro Popular

**Introduction:** The Seguro Popular (SP) is a decentralized institution that's part of the Mexican health system. Its main objective is to achieve universal health coverage. Among other things, the appointed commissioner and his advisors gather and analyze data to develop policies and programs that promote access to effective health care. During my practicum, I worked in the commissioner's office analyzing and summarizing different studies.

**Methods:** In concert with superiors, I wrote a literature review to analyze the evidence that supports the presidential candidates proposals; expanding the current Mexican health care system, specifically SP, or merging the different branches of the system into one. Evidence suggests that SP has provided universal access to health care and decreased catastrophic health expenditures from 3.1% in 2000 to 2% in 2010. However, there's increasing concern that by providing free access to health care, SP is promoting job informality by non-incentivizing people to get a formal job that entitles them to Social Security. This is the basis of proposing the creation of a unified system. I presented these findings to a group of officers. I conducted the analysis of results from different studies to create a report for non public health professionals.

**Results/Outcomes:** I wrote one literature review, analyzed the data of four different studies, and wrote a report that showed these results. All of these will be part of the annual reports SP issues and will help guide policies and decision-making.

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**Name:** Sheila Casey

**Practicum Site:** Cameroon Baptist Convention Health Board

**Location:** Cameroon

**Title:** Process Mapping for Human Resources and Supervision: Participatory Action Research for the Development of a Performance Measurement Tool

**Introduction:** The Cameroon Baptist Convention Health Board (CBCHB) is a consortium of medical centers in Cameroon. They are doing exceptional work but their outcomes are not being measured and documented. The aim of this project was to design a performance measurement tool through participatory action research for use in management and quality improvement. The focus of this presentation is the process for Human Resources and Supervision.

**Methods:** The hospital committee identified 5 clinical and 8 cross-cutting services to measure their performance. Over 6 weeks a team of 9 students and 1 faculty member visited 4 CBCHB hospitals in Cameroon. At each hospital we observed, met with counterparts for discussion, created process maps, generated PowerPoint maps, and held a meeting with the Hospital Measurement Committee to identify key measurement points.

**Results/Outcomes:** The data from our observations and meetings at each hospital was synthesized; a performance measurement tool was created and will be piloted in January 2013. The staff at the hospitals will use the tool to document their process and outcomes and improve the quality of services they provide. The participatory action approach will be analyzed to see if the participation in the creation of the tool shapes the effectiveness of the tool as a useful means of recording performance and motivates the staff to continue to use the tool. A manual will accompany the tool and will be disseminated to other hospitals interested in improving and documenting their performance in low resource settings.

# INTERNATIONAL HEALTH

**Name:** Maeve Conlin

**Practicum Site:** Cameroon Baptist Convention Health Board

**Location:** Cameroon

**Title:** Utilizing Hospital Performance Measurement in Maternal Health Departments: A Participatory Approach

**Introduction:** The CBCHB is a faith-based organization running 5 hospitals, 24 integrated health centers, 50 primary health centers, and a pharmaceutical plant throughout Cameroon. The CBCHB's mission is to provide "exemplary health care with genuine compassion" and thus, a hospital performance measurement tool is integral for quality improvement for service delivery. The focus of the project was the development of the hospital performance measurement tool to measure inputs, processes, and outputs in order to collect and analyze routine essential data. This would allow hospital administrators to have accurate information for evidence-based management to improve hospital performance.

**Methods:** Collectively, the team analyzed clinical and cross-cutting hospital domains; my focus was maternal health services. During the in-country portion of the project (June-August 2012), I completed over sixty hours of observation, created fifteen process maps, and participated in four focus group discussions at three different CBCHB facilities. Throughout the fall semester, the team has been working on developing the instrument (using excel), creating a manual for CBCHB, and standardizing the process maps. I have focused on the instrument.

**Results/Outcomes:** The main outcomes of the project are the manual and instrument. Beginning in January 2013, the tool will be implemented allowing CBCHB to collect data on priority indicators, analyze the data, and, if necessary, make appropriate improvements in quality of care.

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**Name:** Caitlin Corneliess

**Practicum Site:** Cameroon Baptist Convention Health Board

**Location:** Cameroon

**Title:** Improving Hospital Quality Assurance through Performance Measurement

**Introduction:** The Cameroon Baptist Convention Health Board (CBCHB) and a research team of MPH students from Boston University School of Public Health, lead by International Health instructor Monita Baba-Djara, initiated a participatory action research study at four CBCHB hospitals (n=4) this summer. The research aims to develop an instrument measuring hospital performance in low-income countries, in an effort to improve the quality of services at the hospitals.

**Methods:** The research team initiated the participatory action research (PAR) design in Cameroon, with CBCHB performance measurement committees at three intervention hospital sites. One hospital was used as a control. Researchers met with hospital measurement committees and delivered trainings on PAR. Researchers documented the participatory process using participant observation notes. The research team then conceptualized the performance measurement instrument through patient observation, process mapping and indicator development with CBCHB counterparts focused on 12 clinical and cross-cutting services identified by the CBCHB to be evaluated.

**Results/Outcomes:** Results include documentation of the participatory process (participant observation notes, n=25), process maps (n=6), proposed indicators for 12 service areas for each hospital, and a standard process map (n=2) that consolidates each hospital's processes. This poster will display Quality Assurance processes at Banyo, Bango, and Mbingo hospitals, as well as indicators proposed to measure these processes. Future results of this project will follow the development and implementation of the instrument in the intervention hospitals. The study hopes to show an association between contextually appropriate performance measurement and evidence based-management and quality improvement.

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**Name:** Elizabeth DeMare

**Practicum Site:** Boston Medical Center- Department of Cardiothoracic Surgery

**Location:** Boston, MA

**Title:** Administrative Intern

**Introduction:** BMC's Department of Cardiothoracic (CT) Surgery is comprised of two specific surgery practices, cardiac surgery and thoracic surgery. Aligned with the mission and values of BMC, the CT Department provides exceptional care to all patients through a coordinated system, which allows for communication between the patients, the patients' primary care physician, and the medical team at BMC. The purpose of the practicum was to gain understanding of the importance of coordinated care in a large health system and to implement department projects to improve operations and patient services.

**Methods:** As a project management intern, I managed multiple projects in parallel which included; 1) Developing procedures, policies, and staff training materials for co-payment collection specific to the CT department, 2) Performing a time study of clinic operations to minimize inefficiencies and streamline clinic operations, and 3) Developing a patient satisfaction survey to understand patient experience at different points of service.

**Results/Outcomes:** Co-payment collection procedures were adapted from BMC organization policies and the CT administrative staff successfully began to collect co-payments at the point of service, as required by insurance policies. The full impact of co-payment collection has not been fully realized, but unnecessary collections billing will be reduced and the revenue cycle will be streamlined. The findings from the time study in correlation with the patient satisfaction survey were presented and will be used to improve departmental efficiency, patient access, and the overall patient experience.

# INTERNATIONAL HEALTH

**Name:** Laura Hanson

**Practicum Site:** PharmAccess Foundation - Mister Sister Mobile Primary Health Care Service

**Location:** Windhoek, Namibia

**Title:** Assistant Coordinator/Public Health Intern

**Introduction:** In many rural and semi-rural areas of Namibia, access to primary health care is limited. Mister Sister mobile clinics strive to meet this need by providing preventative and curative health services to rural employees and their dependents through a public-private partnership between the Ministry of Health, PharmAccess Foundation, corporate sponsorships and annual contributions from employers. In July 2012, the service expanded into a new region. To increase demand for the service and to obtain baseline measurements for key program indicators, Mister Sister launched a free wellness screening drive along the new clinic route.

**Methods:** The main activities of my practicum included preparing for and carrying out the baseline assessment. With support, I defined the assessment indicators, finalized the protocol for submission, adapted and created new survey instruments, trained and provided continual support to enumerators and wellness assessors, registered patients with the clinic and acted as a general supervisor during the wellness screening period.

**Results/Outcomes:** The wellness screening covered more than 20 sites in Khomas region over 3 ½ weeks. The resulting baseline information will be used by Mister Sister to assess the future impact of the service on 1) patient health outcomes 2) access to primary health care, and 3) health service utilization among registered users. Results will also provide a proxy measurement for the extent to which the clinics are reducing the patient load on area health facilities.

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**Name:** Jason Hayes

**Practicum Site:** Pulitzer Center on Crisis Reporting

**Location:** Washington, DC

**Title:** Student Fellow

**Introduction:** The Pulitzer Center on Crisis Reporting seeks to pair public health professionals with journalists to create a base of responsible media on international health crises. This summer, Boston University student fellows traveled to Haiti to investigate the continuing cholera epidemic with a focus on water and sanitation, the potential effects of a Shanchol cholera vaccine campaign, and the impact of international aid.

**Methods:** My student fellowship was focused on five deliverables – written and multimedia journalism pieces for distribution via news media platforms - which necessitated specific research, interviews, data collection, photographic documentation, writing, editing, and fact-checking in hopes of publication. I spent the first half of the practicum in Washington, DC researching cholera, analyzing epidemiological data from the Haitian Ministry of Health, as well as interviewing public health officials and environmental microbiologists concerning the status of cholera in Haiti. Once in Haiti, I interviewed many Haitians in addition to officials from the Ministry of Water and Sanitation, Doctors Without Borders, Partners in Health, Bureau des Avocats Internationaux, and hospital staff in Port au Prince and rural Deschapelles.

**Results/Outcomes:** After revising drafts with an editor from the Pulitzer Center, five pieces evolved that investigated the effectiveness of a cholera vaccine program, epidemic curves, community-based sanitation programs, and the water poverty index in Haiti. Pieces from this project were published on the Pulitzer Center website, Global Post, and the Huffington Post.

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**Name:** Kathleen Hennessy

**Practicum Site:** PanAmerican Health Organization- WHO/STI

**Location:** Brasilia, Brazil

**Title:** Intern, Pan American Health Organization: Brazil Country Office

**Introduction:** The Pan American Health Organization is the regional branch of the World Health Organization which focuses on health in Latin America and the Caribbean. Each of the member countries have a representation which coordinates technical cooperation with PAHO headquarters in Washington, D.C. as well as national health partners in government, civil society and international organizations.

**Methods:** Working in the Health Systems Development area my primary responsibility is to help organize PAHO participation in the National Public Health Congress (ABRASCO) and to write an article on this conference for the headquarters in Washington DC. Other projects include assisting with an informative brief on the post-2015 millennium development goals, focusing on sustainable development, and systematizing documents for the South-South cooperation in health.

**Results/Outcomes:** Panel presentations at the ABRASCO conference permit PAHO to contribute expertise to a broader community of public health academics and practitioners. This contribution also needs to be conveyed internally, to staff in the headquarters and other country offices of the organization. My article will communicate PAHO's technical and organizational role in the ABRASCO conference in Porto Alegre, Brazil. Other projected outcomes are increased familiarity with projects undertaken by Brazil at the country level, and ways that technical cooperation is articulated with national and international partners.

# INTERNATIONAL HEALTH

**Name:** Thomas Hulse  
**Practicum Site:** Boston Public Health Commission- Research Office  
**Location:** Boston, MA  
**Title:** Smoke Free Homes Research Project Coordinator

**Introduction:** The Smoke Free Homes Study aims to determine whether there is a measurable difference in air quality in multiunit housing buildings with and without smoke-free policies in place. As secondhand smoke represents a public health hazard, it is valuable to know if, and to what extent, smoke-free policies can improve indoor air quality in these residences. I assisted in the collection of air quality data in five Boston Housing Authority (BHA) buildings throughout Boston to help answer that question.

**Methods:** I recruited BHA housing residents to participate and carried out the informed consent process. Using aerosol monitors, I obtained air quality data in terms of PM 2.5 concentration from within smokers' and non-smokers' residences, as well as in common areas and outdoor ambient air. I compiled the data so it can be used to compare PM 2.5 levels in housing with and without smoke-free policies.

**Results/Outcomes:** The data will be used to compare the PM 2.5 concentrations in homes of smokers and non-smokers, as well as between buildings with and without smoke-free policies. A finding of better air quality in buildings with smoking bans in place, as well as evidence of smoke transfer from smokers' units into those of non-smokers will support the importance of non-smoking policies in public housing.

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**Name:** Amanda Johnson  
**Practicum Site:** Batey Relief Alliance  
**Location:** Santa Domingo, Dominican Republic  
**Title:** Improving Management Capacity at Rural Health Center in Monte Plata, Dominican Republic

**Introduction:** Batey Relief Alliance, a Dominican Republic-based non-profit, runs the largest health center in the bateys of Monte Plata, Dominican Republic, serving 45,000 patients annually. The center provides consultations, HIV tests and treatment, general preventive care, a nutrition program and an on-site pharmacy. It had been operating without a Medical Director or Project Coordinator for six months prior to my arrival in July 2012. During my practicum, I developed a management plan, revised the job description to fill the vacant Medical Director position, and restructured the organizational chart to reflect both reporting lines and function lines

**Methods:** To inform the management plan, I conducted unstructured interviews with 7 clinic staff and the CEO, Executive Director, and Human Resources Director. I also led several planning sessions to ensure BRA's strategic plan was reflected in the final products. Lastly, I sought to highlight best practices and find any pre-existing management plans available. Initial drafts of the plan were submitted for review and feedback.

**Results/Outcomes:** Due to vacancies in key leadership positions, clinic management was struggling to meet the needs of staff and patients. Further, clinic staff felt disconnected from the Santo Domingo-based executive leadership team and the overall organizational mission. The final deliverables will be used to (1) recruit a highly skilled Medical Director to fill the current vacant post; (2) provide leadership and managerial guidance for the incoming director to ensure a smooth transition and address problem areas, and; (3) clearly delineate organizational reporting and functional structures so all employees and volunteers understand their role in providing high quality service.

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**Name:** Kendra Keith  
**Practicum Site:** Boston Medical Center- Center for Infectious Disease  
**Location:** Boston, MA  
**Title:** Assessment of Patient and Provider Perspectives of an SMS Based ART Adherence Tool

**Introduction:** Short message service (SMS) is an emerging platform for designing interventions addressing poor antiretroviral therapy (ART) adherence among HIV-infected individuals. The ARemind system is an SMS based adherence tool developed by Dimagi Inc. and piloted at the Center for Infectious Disease at Boston Medical Center. My aim was to assess patient and provider perspectives of ART adherence, cell phone use, and SMS based adherence reminders to inform design of the ARemind system.

**Methods:** Thematic content analysis was used to review patient (n=14) and provider (n=14) transcripts from previously conducted semi-structured qualitative interviews. Patient and provider code books were developed collaboratively with the ARemind study coordinator based on a preliminary transcript review. All transcripts were double coded with the ARemind study coordinator using NVivo 9.0.

**Results/Outcomes:** Patient identified barriers to ART adherence included forgetfulness, not having medications with them, and competing life needs; facilitators included establishing a daily routine, having a social support system, and utilizing some form of an adherence reminder. Daily cell phone and SMS access and use was reportedly high among patients. Use of cell phones and SMS as adherence reminders was perceived positively overall. Expressed concerns included message fatigue, loss of autonomy, and risk of HIV status exposure. Individualization of SMS content to suit patient preference, variation of message frequency according to patient adherence, and targeting most in need patients were suggested measures for optimizing the design of an SMS based reminder system.

# INTERNATIONAL HEALTH

**Name:** Alana Keusch

**Practicum Site:** Boston Medical Center- Center for Infectious Diseases - Sexual Health Clinic

**Location:** Boston, MA

**Title:** Boston STD Clinic Intern

**Introduction:** The Boston STD Clinic at Boston Medical Center (BMC) receives state funding from the Massachusetts Department of Public Health (MDPH) to provide patients with testing and treatment for common STIs, including HIV, Chlamydia, Gonorrhea, Syphilis, and Hepatitis C. The volume and demographics of new patients at the Boston STD Clinic are important for MDPH as it is one of the largest, publicly-funded STD clinics in the state. Additionally, BMC constantly faces financial challenges, and acquiring new patients is a way to increase hospital revenue.

**Methods:** Clinic attendance records were pulled for all 1,790 patients who received STD testing from January through August 2012, prior to my assessment starting in September. I reviewed each patient's visit history and identified which of these patients were new to BMC, and of those, the number that subsequently accessed additional services at BMC. Finally, I analyzed trends comparing tests performed, positive STD results and patient demographics from the sample using Excel.

**Results/Outcomes:** My review showed that 640 patients (36%) were new to BMC, and 79 (12%) of these new patients subsequently accessed care elsewhere within BMC, which is in line with the Department of Medicine Fiscal Year 2013 goals. New patients were overwhelmingly male (70%) and under 30 (66%), which are two populations at high risk for undetected STDs. The volume and demographics of these new patients shows the importance of publicly-funded, walk-in STD clinics, as these are patients that wouldn't necessarily be screened for STDs, or come to BMC otherwise.

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**Name:** Sangah Kim

**Practicum Site:** Ambassadors for Sustained Health

**Location:** Wamuini, Kenya

**Title:** Establishing a Monitoring & Evaluation framework for ASH in Western Kenya

**Introduction:** For the past two years, Ambassadors for Sustained Health (ASH) has assisted Wamuini, ASH's current target community, through a holistic approach. Although positive progress has been made with the current projects in place, conveying these successes and improvements to supporters and potential donors still lies as a challenge. ASH currently lacked a proper method to provide evidence to measure its progress. I developed a measurement system to assess and evaluate the current projects.

**Methods:** We solicited feedback from staff by conducting informal interviews and weekly meetings. After observing the operations on the ground, I 1) re-introduced the importance of evaluation by having weekly open discussions, 2) revised the existing logic models, 3) developed data collection instruments that were practical and reasonable in this low-resource setting, 4) created necessary electronic data collection methods, and 5) implemented evaluation plans.

**Results/Outcomes:** I was able to revise and create three logic models out of five programs due to a lack of information about its intervention and a possible termination of one program, the development of evaluation instruments of electronic spreadsheets and data collection methods will be utilized to evaluate the effectiveness of the implemented programs. The staff members were fully trained in collecting data that can now be used to measure their progress and impact in Western Kenya.

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**Name:** Lindsay Little

**Practicum Site:** Ghana Ministry of Health - Policy, Planning, Monitoring and Evaluation Directorate

**Location:** Accra, Ghana

**Title:** Investigating the rise of maternal death rates in teaching hospitals in Ghana

**Introduction:** From 2010 to 2011 the maternal mortality rate in teaching hospitals in Ghana increased while the number of live births decreased. Within Korle-bu and Komfo Anokye Hospitals specifically, the MMR increased by over 50%. In order to provide the Ministry with better understanding of the rise in maternal deaths at teaching hospitals, Joint Monitoring teams comprised of key stakeholders were formed and visited three regions in Ghana. Semi-structured interviews were conducted with hospital management, and representatives from a district hospital and district health administration. The Joint Monitoring field visits included a qualitative analysis to explore the application of maternal mortality audits, service quality and service readiness within the institution.

**Methods:** As an intern in the PPME unit of the Ministry, I coordinated with team members to develop the interview guide and assessment tool to be used during the field visits. I participated in the interview process and assisted with data collection, analysis, and dissemination of the findings. I was responsible for drafting a report analyzing efficiency and capacity between the district and teaching hospitals included in our analysis within the Greater Accra Region. I further assisted the head of PPME with editing of the 2012 Annual Report.

**Results/Outcomes:** The interviews revealed maternal death audits were used at every level, indicating successful monitoring and evaluation efforts and reporting. Factors cited as contributors to the MMR: poor health seeking behavior, inadequate infrastructure, poor referral system, delays with NHIS, staffing, efficiency, and lack of available blood.



# INTERNATIONAL HEALTH

**Name:** Marym Mohammady

**Practicum Site:** Boston Medical Center - Department of Family Medicine

**Location:** Boston, MA

**Title:** Developing a Hypertension (HTN) Assessment Continuous Quality Improvement (CQI) Project

**Introduction:** Uncontrolled hypertension (HTN), or high blood pressure, is a major risk factor for chronic kidney disease, myocardial infarctions, stroke, and cardiovascular disease and is associated with lower life expectancy. Of all the patients seen at the Family Medicine clinic at BMC in the last 12 months, 34% have HTN listed on their problem list, and only 56% are at controlled blood pressure levels. Additionally, several patients meet the criteria for having more progressive stages of HTN, but have missing diagnoses. Proper HTN assessment at a clinical visit is extremely vital in ensuring optimal patient care for high-risk populations and prevention of many health issues related to elevated blood pressure. The current project used a formative research approach to identify process and outcome measures to help Family Medicine determine trends and develop a continuous quality improvement project for ameliorating HTN assessment of patients.

**Methods:** I worked with the leadership in Family Medicine to define appropriate process and outcome measures necessary for informing healthcare providers' HTN assessment procedures. I designed a simple, evidence-based medicine workflow and developed an auditing tool for scoring providers on their performance. The results are being used to deliver individual feedback on how to implement better HTN assessment practices within the clinic.

**Results/Outcomes:** Going forward, our hope is that by auditing providers and giving constructive feedback, the number of controlled hypertensive patients will be increased by 50% from the current level within the next 12 months and Family Medicine will be delivering better patient-centered medical care.

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**Name:** Erika Mohr

**Practicum Site:** Boston University Center For International Health & Development

**Location:** Choma, Zambia

**Title:** Application of Chlorhexidine to Treat Cord Infection in Zambia, The Zambia Chlorhexidine Application Trial (ZamCAT)

**Introduction:** ZamCAT is a clinical research trial conducted in Southern Province, Zambia. This study aims to determine the efficacy of chlorhexidine in the treatment of umbilical cord infection compared to the standard method of dry cord care among Zambian newborns. About 1/3 of the four million deaths that occur among infants within first 28 days of life, are caused by infection. Infection of the umbilical cord is a common source of these infections which often lead to death in the developing world. Neonatal mortality as a result of infection is common in Zambia, especially in rural settings where home births are frequent.

**Methods:** The duration of this practicum was six months. The three main tasks included 1) assisting with administrative duties to aid with ZamCAT data management procedures 2) assisting with the health facility and health worker surveys 3) conducting clinical outreach and enrollment and the training and retraining of field monitors/health facility staff.

**Results/Outcomes:** Pregnant women are still being enrolled into and data is being analyzed from ZamCAT. It is hypothesized that chlorhexidine will be a better method to treat/prevent cord infection and thus will reduce incidence of infant mortality within the first 28 days of life. This practicum gave me experience working on a clinical research trial, enabling me to understand the integral tasks involved with the operation of research projects. I devised a new operating procedure for back-filing of data and was successful in completing health worker/facility surveys from which I analyzed and presented results.

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**Name:** Nathene Morley

**Practicum Site:** Wits Medical School- Developmental Pathways for Health Research Unit

**Location:** Johannesburg, South Africa

**Title:** Analyzing the Birth to Twenty Cohort for Secondary Academic Achievement in Johannesburg

**Introduction:** Birth to Twenty is the largest and longest running childhood development cohort on the African continent. Enrolled within six weeks after Nelson Mandela's release from prison on February 11, 1990, these participants represent the new, democratic South Africa.

**Methods:** Working between two offices of DPHRU at University of Witwatersrand and Baraguanath public hospital in Soweto, I conducted core questionnaire interviews, entered education data for approximately 3,000 participants regarding their secondary academic achievement, developed variables and summarized these findings in a final report.

**Results/Outcomes:** With this dataset now complete, DPHRU may analyze significant contributors to the outcome observed. From the summary it is clear that this data presents a marked recapitulation of the Apartheid legacy, with marked disparity in student outcomes. With 33% of the cohort failing to complete secondary school and just over 10% passing well enough to be admitted to university in the same city, there is no better time for the Department of Higher Education to pass the 2012 Green Paper into a strategic plan to revamp and reimagine its role in shaping the future of the South African youth.

# INTERNATIONAL HEALTH

**Name:** Denis Mzaga

**Practicum Site:** Boston Medical Center- Dorchester House

**Location:** Boston, MA

**Title:** Updating client information and observing program management

**Introduction:** Codman Square Health Center is a community-based, outpatient health care and multi-service center in the heart of Dorchester. It is made up of multi-lingual staff and multi-cultural expert clinicians, medical staff, and employees, most of whom reside in the neighborhoods near Codman Square. With over 100,000 client visits each year, they have developed an astounding depth and breadth of community programs, as well as strong partnerships with other organizations in order to meet their mission most efficiently.

**Methods:** As a part of the HIV team I was able to: 1) to update all patients' information in compliance with funder requirements; 2) attend all clinical and evaluation meetings; and 3) participate in HIV support groups.

**Results/Outcomes:** By the end of my practicum, I updated all patients' files and arranged them in an easily assessable order. I learned how a team works effectively to achieve intended objectives and how information is circulated among team members. Importantly, I observed how a program works with clinicians in enrolling and follow up of patients and how each member of the team contributes boundlessly to the success of the program. This opportunity also exposed me to the lives and experiences of some of the most disadvantaged people in Boston.

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**Name:** Asari Offiong

**Practicum Site:** Cameroon Baptist Convention Health Board

**Location:** Cameroon

**Title:** Using a participatory approach to design a performance measurement tool

**Introduction:** The CBCHB, a Christian-based network of health facilities, is recognized throughout the country for its provision of exemplary health care services. Recognizing the need for quality hospital data collection, a team of BUSPH students and CBCHB are seeking to design and implement a hospital performance measurement tool. The project is framed under a participatory action approach with 3 integral phases: conceptualization, design and implementation. The focus of this summer was the conceptualization phase, which provided the information needed to design an adaptable tool for similar low-resource setting facilities interested in monitoring their hospital performance.

**Methods:** Over a 2-month span, I worked in four hospitals spending 30 hours per week in each facility. Qualitative data was collected through direct observation notes, conversations with patients and experts in the services and weekly meetings with the measurement committee at each facility. I followed 2-3 patient journeys per facility primarily in child services, but also in 3 cross-cutting services. The data gathered from the clinical and cross-cutting services were presented through detailed process maps using PowerPoint.

**Results/Outcomes:** As a group, we created over 60+ process maps that were used to identify more than 20 possible measurement points and health indicators. The data will be used for the design phase of the project. In addition, a training manual will be created to guide CBCHB and future facilities on the use and adaptation of the tool.

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**Name:** Michael Parks

**Practicum Site:** Curamericas

**Location:** San Sebastián Coatán, Guatemala

**Title:** Reducing Maternal and Child Mortality

**Introduction:** As a summer intern for Curamericas Global Guatemala, an NGO based out of Raleigh, North Carolina dedicated to making measurable and sustainable health improvements in underserved communities, I assisted in the following projects: developing and implementing a multi-community water and sanitation needs assessment, conducting maternal and child vaccination, height and weight controls, and community hand-washing education. The purpose of the water and sanitation assessment was to determine the families in most need for a hand-washing station (HWS). The maternal and child controls assisted to decrease mortality in women and children and track child growth development. Community hand-washing education demonstrated proper hand-washing techniques and disseminated knowledge on the importance of hand-washing to help reduce the number of diarrheal events in children under the age of five.

**Methods:** I worked with my practicum partner and local staff to: 1) design an assessment tool and conduct a community water and sanitation needs assessment; 2) conduct daily maternal and child vaccination, weight and height controls, which included data collection and record keeping; 3) helped to build local staff and community capacity in hand-washing education.

**Results/Outcomes:** The community water and sanitation assessment will serve to inform on community HWS needs and guide future fund allocation. In addition, the report will serve as a situational analysis to accompany future water and sanitation fund requests. Improving community hand-washing training and education capacity empowers the local community with a low cost, sustainable behavior to help reduce the number of diarrheal events in young children and infants.

# INTERNATIONAL HEALTH

**Name:** Laura Pugliese  
**Practicum Site:** Oxfam Canada- Southern Africa Program  
**Location:** Cape Town, South Africa  
**Title:** Research Assistant

**Introduction:** Oxfam in South Africa's Cape Town-based Gender Justice Institute provides funding and capacity building opportunities to civil society organizations working towards women's rights and gender equity in South Africa, Mozambique and Zimbabwe. The site currently supports organizations that address issues of women's leadership, education and gender-based violence, but would like to expand its scope to encompass issues of women's health and sexual reproductive health and rights (SRHR). To initiate the process, I performed qualitative research to develop concept paper to outline the status of women's SRHR in targeted countries and recommend areas for potential Oxfam partnerships .

**Methods:** I performed a comprehensive literature review of contemporary trends and debates in women's health in South Africa, Mozambique and Zimbabwe. I also performed key-informant interviews with women's health advocates, program implementers and health practitioners to gain further insight into women's health issues and identify prospective organizations for Oxfam support.

**Results/Outcomes:** I submitted my research findings to Oxfam in South Africa's Gender Justice Institute in the form of a concept paper and an abridged concept note. Research outlined a spectrum of women's health issues and inequities in areas including family planning, abortion services, maternal care, treatment and prevention of cancers, and LGBT sexual health. Key recommendations included advocacy for women's interests in current national health reforms and advancement of training, management and accountability at the systemic level. Results were presented to the Oxfam head office in an effort to secure funding to support SRHR programming. Approval for the proposed expansion is currently pending.

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**Name:** Jazmyn Scott  
**Practicum Site:** Swasti Health Resource Center- Consulting Team  
**Location:** Bangalore, India  
**Title:** Intern, Partners for Results

**Introduction:** Swasti Health Resource Centre is a non-profit organization based in Bangalore with offices located throughout India. It was established in 2002 with the intent of improving health outcomes in India's poor and socially excluded groups. Swasti addresses health in India through several mechanisms including Action Research and Implementation, Technical Management and Support, and Learning Systems.

**Methods:** Swasti is an organization that is constantly implementing programs, documenting outcomes, and conducting research. This provides a unique opportunity for interns to work with a variety of projects that strike their interests in a fast-paced consulting atmosphere. During my time with Swasti, my activities included 1) providing support for proposal writing and submission 2) research and documentation of a social protection intervention and its results for PLHIVS and MARPS 3) data collection for various projects related to HIV and social enterprise, 4) qualitative data analysis from focus group discussions 5) market research related to social enterprise for health and 6) training of employees on social enterprise in the development sector.

**Results/Outcomes:** My practicum culminated with a three-hour training on social enterprise, which I presented to employees and leadership within the organization. It included three presentations as well as activities and discussions. In addition, the documents I produced and research I contributed to are in various stages ranging from continuing data collection to distributing final deliverables.

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**Name:** Clara Setiawan  
**Practicum Site:** Dana Farber Cancer Institute- Center for Community Based Research  
**Location:** Boston, MA  
**Title:** Research Assistant

**Introduction:** The Dana-Farber Cancer Institute in collaboration with the Healis-Sekhsaria Institute in India is designing a study that will adapt an evidence-based integrated tobacco control intervention for Indian worksites. The integrated approach to tobacco control has been shown to be effective in promoting smoking cessation particularly in blue-collar workers who are at high health risk for exposures to occupational hazards and for tobacco use. The Mumbai Worksite Tobacco Control study will test the effectiveness of an integrated tobacco control and occupational health intervention in 20 manufacturing worksites in Mumbai, India. The intervention will be comprised of three components: 1) a company tobacco control policy, 2) a strong occupational safety and health set-up, and 3) provision of educational events regarding tobacco for the employees.

**Methods:** The study has just completed the intervention development stage. By participating in principal investigators' meetings and using what we learned from the pilot study, I developed protocols for all of the intervention activities from meetings with management to health educational events with the employees. Furthermore, I helped develop the training materials that will be used to train the Health Educators in India.

**Results/Outcomes:** The program is now being implemented in the intervention worksites. We expect a significantly higher tobacco cessation rate in the intervention worksites compared to the control worksites.

# INTERNATIONAL HEALTH

**Name:** Amber Steorts

**Practicum Site:** Cameroon Baptist Convention Health Board

**Location:** Boston, MA

**Title:** Developing Hospital Performance Measurement Instrument Using Participatory Action

**Introduction:** The Cameroon Baptist Convention Health Board (CBCHB) is a faith-based organization running 5 hospitals, 24 integrated health centers, 50 primary health centers, and a pharmaceutical plant throughout Cameroon. The CBCHB's mission is to provide "exemplary health care with genuine compassion." However, the organization does not have a system to measure the performance of care or service delivery at each healthcare facility. As a result, CBCHB partnered with a team of Boston University graduate students to create a measurement tool for hospital administrators to identify which departments and cross-cutting services are performing well and which services require improvement.

**Methods:** From April to December 2012, I conducted an in-depth literature review on hospital performance indicators and measurement tools in developing countries. With this information and in participation with CBHCB hospital administrators and staff, I developed an excel-based hospital performance instrument to measure the performance of three CBHCB hospitals in Cameroon.

**Results/Outcomes:** The project resulted in the development of a hospital performance measurement instrument and training manual. Starting in January 2013, the instrument will be implemented at three CBHCB hospitals. Each hospital will collect data on priority indicators, input the data into the performance instrument, and track performance with the overall goal of improving the quality of care.

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**Name:** Nga Tong

**Practicum Site:** Harvard Humanitarian Initiative

**Location:** Nepal

**Title:** Research Coordinator Intern

**Introduction:** While there are organizations that have the capacity to deliver care to HIV/AIDS patients in Nepal, regional context and vulnerable groups present unique challenges to effective antiretroviral therapy (ART). Only 23.7 percent of those in need of ART in Nepal receive the therapy. Children infected and affected by HIV/AIDS are more likely to have significantly lower treatment rates than those without the disease. Children's homes (long-term care residential facilities for children with HIV) may help provide comprehensive care by addressing the health and development of HIV-infected children in Nepal, while also mitigating and reducing vulnerable orphans' risk for sex trafficking, human trafficking, and homelessness. The purpose of this feasibility study was to identify barriers to care for this population, which includes 1) availability and affordability of antiretroviral (ARV) drugs and 2) social stigmas that stifle surveillance and treatment uptake.

**Methods:** This study took place in Nepal during the summer of 2012. We conducted semi-structured interviews based on purposive sampling with managers, directors, and coordinators from various NGOs and government programs related to children's homes and/or the pharmaceuticals supply chain for ARVs. Transcription and encoding of qualitative data collected from these interviews were analyzed using NVivo research software.

**Results/Outcomes:** Interview findings are currently undergoing analysis. Once the analysis is completed, the results will be used to provide residential comprehensive care recommendations and guidelines for Tiny Hands International and other similar NGOs who are looking to develop children's homes in Nepal.

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**Name:** Lauren Walters

**Practicum Site:** Ninos Con Valor

**Location:** Cochabamba, Bolivia

**Title:** Intern

**Introduction:** The purpose of the project was to create and implement a transitional program for the orphaned girls that currently reside Corazon del Pastor (CDP) home of NVC. This comprehensive plan allows the girls to make a seamless transition into adulthood when they are no longer eligible to access resources available through CDP. A two-phase program was developed throughout my experience.

**Methods:** The first phase of the program is a research based educational program to prepare the girls with skills necessary to live independently upon reaching age eighteen. The six-year program sets up a support system for each girl that includes sessions on life skills, confidence building and preparation for higher education or job placement. A condensed version of the program was started with the oldest six girls, aged fifteen and sixteen, at the beginning of the practicum. Upon completion of the first part of the program, a second phase of a physical transitional home was created in order for the girls to utilize in the event that they do not feel fully prepared to live on their own at eighteen.

**Results/Outcomes:** Outcomes of the transitional program were the structure and content of the six-year transitional program and the physical transitional home. The six-year program is now being implemented with all of the girls living in the CDP home ages twelve and up. The physical transitional home still requires funding to be established, but the requirements for the girls to live within this home and the logistics have already been planned and documented.

# MATERNAL & CHILD HEALTH

**Name:** Megan Barnes

**Practicum Site:** MA Department of Public Health- Bureau of Family Health and Nutrition

**Location:** Boston, MA

**Title:** Massachusetts Home Visiting Initiative Intern

**Introduction:** The Massachusetts Home Visiting Initiative is a federally funded program designed to improve service coordination and outcomes for children ages 0-8 years old through evidence based home visiting services. The University of Massachusetts Donahue Institute is providing a multi-phase evaluation determining community capacity to support childhood development. I was tasked with interviewing Massachusetts Home Visiting Coordinators; to gather information in order to develop a definition of "community capacity".

**Methods:** I conducted semi-structured interviews structured to solicit feedback about the meaning of "community capacity". In total 19 home visiting coordinators were interviewed across the state of Massachusetts. Analysis on all interviews was done by compiling all of the interview notes and identifying responses and themes that were present in greater than 50% of all interviews.

**Results/Outcomes:** There were a number of common themes identified as essential for community capacity to support childhood development. Community resources provide families with opportunities to thrive and create a safe environment for their children. Community resources include; housing, nutrition, education, transportation, and employment. Additionally home visiting coordinators identified community involvement through leadership and participation in making community decisions to be an important aspect of community capacity. Finally all coordinators stated that high capacity communities utilize collaboration in order to work towards a goal and create efficiency in order to serve families.

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**Name:** Rachel Bernier

**Practicum Site:** Massachusetts Department of Public Health

**Location:** Randolph, MA

**Title:** Local Board of Health Summer Internships

**Introduction:** Latent tuberculosis infection (LTBI) occurs when tuberculosis bacteria are present in an individual, however the person is neither infectious nor symptomatic. Left untreated, latent tuberculosis can convert to active tuberculosis. This practicum at the Randolph Board of Health (BOH) involved determining the number of cases of LTBI in Randolph. Randolph is a town which has many immigrants from TB endemic countries.

**Methods:** Cases were analyzed for any Randolph resident whose medical record indicated that they received treatment for LTBI or had an initial clinical evaluation for LTBI as of January 1, 2011. Case counts of LTBI from medical records on file at the BOH were compared to state records for Randolph using the MAVEN tool. MAVEN is an online network used by Massachusetts Department of Public Health (MDPH) and local health departments for disease reporting and surveillance. Despite this system, not all providers report LTBI to MAVEN. Case report forms were completed for people who were not present in the MAVEN system and submitted to the state TB program.

**Results/Outcomes:** In Randolph, 174 cases of LTBI were identified through all sources of patient records. Demographics are as follows: 63 male, 108 female and 3 unknown; 10 completed treatment, 19 stopped/refused treatment, 13 not treated due to medical advice, and 132 unknown treatment status. The BOH had 62 cases of LTBI that were unaccounted for in MAVEN. This suggests the need for increased education of providers regarding the importance of reporting LTBI to Massachusetts Department of Public Health (MDPH).

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**Name:** Nina Burke

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

**Location:** Boston, MA

**Title:** Research Assistant

**Introduction:** The purpose of DART is to examine the relationship between alcohol and drug use and relationship conflict and violence among 18-24 year old male and female perpetrators. The purpose of the Pornography Study is to explore how pornography affects the sexual knowledge and behavior of urban youth ages 16-18.

**Methods:** I created and managed Access databases for DART and the Pornography Study. I recruited, screened, and enrolled study participants for both DART and the Pornography study in the Boston Medical Center Pediatric Emergency Department. I am also part of the qualitative data analysis team for the Pornography Study and will be using ATLAS.ti to code the interviews.

**Results/Outcomes:** Both studies will continue beyond the practicum period, and therefore I do not have conclusive results at this time. By the end of DART, the results will dictate whether there is a relationship between dating conflict and alcohol and drug use, as well as suggest the temporal nature of the relationship. By the end of the Pornography Study, we will hopefully develop a better understanding of how pornography influences the lives of adolescents. On a personal level, I was impressed by the adolescents' attitudes towards participating in research and their willingness to speak with me. The pediatric emergency department is a unique and fast-paced environment for conducting research. I am now equipped with qualitative research skills, particularly for research involving human subjects. I have gained an appreciation for all stages of the research process.

# MATERNAL & CHILD HEALTH

**Name:** Tanya Donahou

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

**Location:** Boston, MA

**Title:** Which Came First? Alcohol and Drugs or Intimate Partner Violence?

**Introduction:** DART is a prospective study conducted in the Boston Medical Center Emergency Department to assess the temporal relationship between intimate partner violence (IPV) and substance use in 18-24 year olds in the greater Boston area. The literature shows a clear relationship between substance use and IPV, especially in this population, but the temporal nature of this association is unknown. Does alcohol and/or drugs lead to the violence, or is the substance use in response to the conflict in the relationship?

**Methods:** Patients seen in the ED between the ages of 18-24 without serious illness or injury were approached and then screened for the study if interested. Those who screened positive as perpetrators of IPV, in current relationships, and substance users were interviewed using a series of validated questionnaires. A timeline follow-back interview was then conducted to assess the subject's substance and IPV behaviors in the past three months. Subjects then called in every day to an automated system to report substance use and IPV behaviors that day. An exit interview was performed at the end of three months.

**Results/Outcomes:** This study is ongoing; so all findings are currently preliminary and are mostly demographic. The results of this study will have the greatest impact on counseling given to perpetrators of intimate partner violence. As the relationship between IPV and substance use is better understood, the resources focused on substance abuse and violence prevention can be more effectively utilized. A secondary gain of this study will be further validation of the use of timeline follow-back interviewing.

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**Name:** Zachary Dyer

**Practicum Site:** Worcester Public Schools- Department of Health and Physical Education

**Location:** Worcester, MA

**Title:** Worcester Public Schools Health & Physical Education Intern

**Introduction:** The Worcester Public Schools' (WPS) 44 schools serve over 23,000 students in an urban setting. Each student participates in either health or physical education each year, the curricula of which are managed under a single position in the WPS administration. High-school health classes can help establish life-long health practices and are pivotal arenas in addressing issues such as mental health and nutrition. Two significant challenges for the WPS Health & Phys Ed Department are ensuring the curriculum is data-driven, and keeping instruction interactive and relevant to students. This practicum focuses on addressing these issues.

**Methods:** I first observed the interactions between the Health/Phys Ed department and other community and organizational stakeholders to see how the curriculum was developed and changed from year to year. I then observed high school health classrooms to see how the curriculum is implemented. Meanwhile, I performed a literature review to determine common qualities of effective comprehensive health classes and reviewed popular lesson-plan websites to find project-based lessons for specific units. Finally, I prepared a training for the health teachers to introduce them to research-based, collaborative, project-based health curriculum practices.

**Results/Outcomes:** Worcester is undergoing an overhaul of its teacher evaluation system, mandating the use of SMART goals and the health instructors have a harder time establishing meaningful goals than in other departments. In the 2013-2014 school year, they will be able to use the implementation of the project-based curriculum as their classroom goals, establishing more effective instruction and hopefully, training healthier students.

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**Name:** Ann Henry

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

**Location:** Fall River, MA

**Title:** Massachusetts Home Visiting Initiative Intern

**Introduction:** Under new regulations in the Affordable Care Act, the state of Massachusetts has received funds to expand and/or enhance evidence-based home-visitation models for pregnant women and young children. These services are designed to connect families with resources in 17 identified high-need communities across the state. Evidence suggests that home-visiting programs contribute to reduced rates of child abuse and neglect by supporting positive parenting and parent-child relationships, reduced rates of repeat early births, improved maternal educational achievement and employment, and improved overall child health and development by improving school readiness and adaptation. The Massachusetts Home Visiting Initiative is designed to improve existing services by defining and understanding community capacity.

**Methods:** To illustrate community capacity, an asset map for Fall River, MA was developed. An asset approach provides a positive frame to identify existing/potential community resources. Though needs are recognized, a strength-based perspective focuses on community attributes from several environments (built, service, social, economic) that can be utilized or 'unleashed' to support adoption and implementation of innovative services. An extensive literature review helped define community capacity and informed the basic framework for the community capacity indicators mapped in this practicum.

**Results/Outcomes:** Several asset maps for Fall River, MA, which portray existing resources and define gaps in services, were produced and will serve as a template. In addition, community capacity indicators have been outlined for the rest of the 16 high-need communities, providing DPH with a foundation to construct the remaining asset maps. These maps will help define a systematic approach to assessing and improving current home-visiting services.

# MATERNAL & CHILD HEALTH

**Name:** Cheryl McSweeney

**Practicum Site:** East Boston Neighborhood Health Center

**Location:** Boston, MA

**Title:** Community-Based Approaches to Obesity Prevention and Treatment in East Boston

**Introduction:** East Boston Neighborhood Health Center is the major source of medical care for the residents of East Boston. As a primary care provider at the health center for the last nine years, I have seen the impact of increasing obesity rates on the health of patients and families. While the health center and community have begun programs to combat obesity, the providers in the family medicine department where I work were not well connected to these resources.

**Methods:** I reviewed the literature on what is effective for the prevention and treatment of obesity, particularly in a diverse, low-income urban setting. Using this information, I presented two seminars to family medicine residents on the topic of community-based interventions for obesity prevention and treatment. I surveyed medical providers to determine what resources they were currently accessing for patients around the issue of obesity and what information was lacking. I met with existing area programs to better understand the resources available.

**Results/Outcomes:** Based on the provider needs assessment, I learned that most providers (74%, 20/27 surveyed) are using the electronic medical record patient education resources and many commented that these resources are inadequate. The most common additional resource requested (70%, 19/27 surveyed) was linguistically and culturally appropriate patient education handouts. I am compiling a list of area resources and patient handouts and will present this information to the department. These resources will be linked in the electronic medical record so they are accessible to medical providers during patient visits.

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**Name:** Bosede Opetubo

**Practicum Site:** YWCA Boston

**Location:** Boston, MA

**Title:** Women's Health & Wellness Liaison

**Introduction:** Implicit in YWCA Boston's mission of eliminating racism, empowering women and promoting justice and dignity for all is the goal of reducing racial health inequities. To fulfill this arm of its mission, YWCA offers a range of programs to combat the most prominent health issues facing women of color, like cancer. These programs aim to improve screening rates, increase early detection and treatment, and encourage other risk-reducing behaviors among populations at most risk.

**Methods:** As Women's Health & Wellness Liaison, I assisted with prevention and outreach efforts and developed a training manual on the program for future staff. Over three months, I attended numerous screening days at community health centers across Boston, held on the Dana Farber Cancer Institute's Mobile Mammography Van, and provided general health and breast self-exam education to patients. I also designed a system and accompanying materials to enroll participants into an ancillary YWCA program that sends regular health reminders via text message. With the knowledge gained from working with these women first-hand, I created a program guide that will be used to train future Health & Wellness staff.

**Results/Outcomes:** Overall, I provided education to approximately 50 women, all of whom were Black and/or Hispanic. 20% of participants enrolled in the YWCA's reminder service which bodes well for future adherence to the prevention strategies discussed. The program guide I researched, wrote, and designed will provide the necessary information and context to help future YWCA staff continue this work in the most efficient and effective way possible.

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**Name:** Christine Silva

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

**Location:** Boston, MA

**Title:** Incorporating Substance Abuse Education and Referral to Treatment in the Pediatric Emergency Department

**Introduction:** Substance abuse is a public health issue that affects many adolescents, but is not often addressed during routine health care. Project ASSERT addresses this concern by collaborating with healthcare professionals in the Boston Medical Center Emergency Department (ED) to provide resources and referrals to treatment at the point of service. By contextualizing substance abuse as a part of general health and safety, more adolescents can receive the information and resources they need to live a healthier lifestyle.

**Methods:** As a Health Promotion Advocate (HPA) with Project ASSERT, I utilized a brief screening tool with patients 14-21 years old to identify specific health needs. Patients who reported drug or alcohol use were engaged in a Brief Negotiated Interview (BNI). The BNI uses motivational interviewing techniques to build rapport, assess readiness to change problem behaviors, and develop an action plan, which includes referral and access to substance abuse treatment. Information from the screening was used to develop new resource guides for patients and providers in the Pediatric ED.

**Results/Outcomes:** Three topics were identified as areas where patients and providers needed more information. Given changes in patterns of drug abuse, providers needed additional information about synthetic marijuana and "Bath Salts." In addition, female patients showed concerns about choosing a method of contraception, given the variety of options available. A comprehensive literature review informed the development of two provider fact sheets and a patient fact sheet. Project ASSERT can use the fact sheets as educational resources for patients and providers in the future.

# MATERNAL & CHILD HEALTH

**Name:** Emma Trucks

**Practicum Site:** Boston University School of Medicine- Continuing Medical Education

**Location:** Boston, MA

**Title:** Research Assistant

**Introduction:** This practicum aimed to increase the Human Papilloma Virus (HPV) vaccination rate among patients at Dorchester House and Codman Square community health centers (CHC) through an educational program with quality improvement (QI) principles. Although there are barriers to vaccinating a population, patients who seek routine health care present ample vaccination opportunities. Despite this, both CHCs had not achieved high rates of fully vaccinated patients. HPV causes many health problems, including genital warts and several cancers which could be prevented through vaccination.

**Methods:** Boston University School of Medicine (BUSM) Continuing Medical Education (CME) office and HPV expert, Rebecca Perkins, MD collaborated to implement this program. I worked with DotWell IT services to generate monthly reports of adolescent vaccinations for each CHC. I analyzed this data and created run charts based on the performance of each individual provider, as well as the practices as a whole. Additionally, I presented the data on several occasions at both CHCs. To supplement my knowledge of QI, I completed a series of online modules through the Institute for Healthcare Improvement.

**Results/Outcomes:** To date, Dorchester House increased initiation of HPV vaccination in their 11-14 year old girls by 13%. Codman Square increased initiation of HPV vaccination in all girls by 7%. Both CHCs show success in the other measures we are evaluating in this program and continue to increase their overall vaccination rate.

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**Name:** Chukwuemeka Umeh

**Practicum Site:** Abia State Ministry of Health- Public Health Department

**Location:** Nigeria

**Title:** Assistant State Immunization Officer

**Introduction:** In 2009, Abia state initiated the first private – public childhood immunization partnership (PPCIP) in Nigeria, where private health facilities are supplied vaccines and consumables by government and they provide immunization free to children without being paid by the government or parents. One of my projects was to review the contribution of the private health facilities in providing immunization services in Abia state Nigeria.

**Methods:** I analyzed the 2009 - 2011 Abia state monthly immunization data supplied to the primary health care department of the ministry of health by the local government immunization officers (LIOs) of the 17 local government areas of Abia state.

**Results/Outcomes:** In the 4 local governments operating the PPCIP, 45% (79/175) of the health facilities that offered immunization services in 2011 were private health facilities and 55% (96/175) were public health facilities. However, 21% of the immunization services took place in private health facilities while 79% took place in public health facilities. The percentage of children immunized was also much higher in the local governments implementing PPCIP. Private health facilities were shown to have made a modest contribution to immunization in the 4 local governments involved in the PPCIP. Efforts should be made to expand PPCIP nationally to improve immunization services in Nigeria.



# SOCIAL & BEHAVIORAL SCIENCES

**Name:** Kyle Bogaert  
**Practicum Site:** Concord Board of Health  
**Location:** Concord, MA  
**Title:** Health Status Indicator Analysis

**Introduction:** The town of Concord was recently awarded a Healthy Communities Planning Grant from the Northwest Suburban Health Alliance to conduct a community health assessment and improve the health of the community. The focus of this project was to analyze health status indicator data in order to provide data-driven recommendations to the grant steering committee about where to target funding.

**Methods:** Data was compiled on a number of health status indicators including chronic and infectious diseases, cancer, and relevant risk factors and behaviors. The Massachusetts Community Health Information Program, the Youth Risk Behavior Survey, and the Massachusetts Department of Epidemiology and Immunization provided most of the data for the analysis. Once collected, the data for the town, county, and community health network area were compared to neighboring communities, Massachusetts, and Healthy People 2020 goals.

**Results/Outcomes:** Concord outperformed the state in the majority of indicators measured, including most measures of chronic and infectious disease and rates protective health behaviors. Despite the relative health of the community, notable areas emerged from the data that reflected the age distribution of community with greater proportions of its population under the age of 18 and over the age of 60 as compared to the state. Compared to neighboring communities, Concord had a higher rate of youth alcohol consumption, and higher rates of hip fracture among older adults compared to the state. The data was presented to the steering committee, and recommendations were made to focus the funding on the health of youth and older adults.

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**Name:** Taylor Mazac  
**Practicum Site:** Massachusetts Department of Public Health- Office of HIV/AIDS  
**Location:** Boston, MA  
**Title:** Client Health Services Intern

**Introduction:** The Massachusetts Department of Public Health (MDPH) Office of HIV/AIDS is dedicated to addressing the HIV/AIDS epidemic through research, evaluation, policy, prevention and support services. As a Client Health Services Unit intern, my duties were focused around the provision of health-related support services for people living with HIV/AIDS. In particular, I worked with contract managers in the monitoring of state-funded programs and conducting an analysis of current health disparities within the service delivery system.

**Methods:** Practicum activities included: 1) meeting with various state-funded HIV/AIDS program staff to determine how services are promoted and delivered to clients; 2) analysis of state epidemiological, Counseling, Testing, and Referral (CTR) data regarding rates of new infection and utilization of support services; and 3) assessment to determine if non-US born HIV positive individuals are receiving client health-related support services

**Results/Outcomes:** Initial findings found that there are certain factors that both hinder and promote initial testing and utilization of support services among non-US born HIV positive individuals living in Massachusetts. The MDPH can use these assessment results to inform and guide state strategies to adequately address this population's specific client service needs.

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**Name:** Madeline McClure  
**Practicum Site:** Lahey Clinic- Medical Education  
**Location:** Burlington, MA  
**Title:** Patient Education/Health Communications Intern

**Introduction:** Health literacy is an often under-appreciated concern in public health, but its effects are profound. Even very highly educated people can have poor health literacy. Unrecognized low health literacy can lead to worse health outcomes. The Lahey Clinic has a department devoted to ensuring that one's literacy level does not unfairly affect one's health outcomes.

**Methods:** As the patient education and health communications intern at the Lahey Clinic, my work centered on increasing patient adherence to physician instructions. This was done through the development and revision of pre-operative and post-operative instructions, as well as other patient care documents such as departmental pamphlets and brochures. Work focused primarily on revising the language to make it more understandable by those who do not have medical degrees.

**Results/Outcomes:** Many of these documents have been completed and are being distributed throughout the Clinic. Others are still awaiting final approval. It is believed that these new documents will increase patient compliance, and thus outcomes, because they are much more clear and easy to understand.

# SOCIAL & BEHAVIORAL SCIENCES

**Name:** David Miller  
**Practicum Site:** Children's Hospital Boston  
**Location:** Boston, MA  
**Title:** Global Health Analyst

**Introduction:** practicum involved two simultaneous projects (education platform and quality of life/needs assessment) with two different organizations (Boston Children's Hospital and IVUmed). Both were coordinated through Dr. Hiep 'Bob' Nguyen at Boston Children's Hospital. Our projects involved completing draft requirements for a collaborative surgical education platform as well as performing a quality of life and needs assessment on site in Kigali, Rwanda.

**Methods:** Throughout the months of Jan-Sept 2012, I worked with Dr. Nguyen to document a urology specific curriculum schedule for our online platform. This was eventually reviewed, approved, and incorporated into the larger Open Pediatrics project in partnership with Boston Children's Hospital and IBM. I also developed an educational needs assessment for providers in developing countries. While on site in Rwanda I was able to administer these needs assessments to over a dozen providers at varying levels of training. Additionally, I was able to administer a quality of life assessment to families whose sons were undergoing certain urology procedures. These assessments and my research were incorporated into a larger medical mission trip organized by IVUmed to two health facilities in Kigali, Rwanda.

**Results/Outcomes:** During the summer of 2012, our educational requirements were incorporated into the larger Open Pediatrics project. We were also able to acquire educational/needs data from over a dozen providers in Kigali, Rwanda and quality of life data from over 10 patients in the same area. Our intent is to conduct a follow-up assessment for postoperative-quality of life analysis in 2013.

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**Name:** Catherine O'Doherty  
**Practicum Site:** Marin County Health and Human Services - Prevention Hub  
**Location:** Marin County, California  
**Title:** Prevention Hub Strategic Planning Intern

**Introduction:** The Marin County (CA) Department of Public Health has recently formed the Prevention Hub to enable better collaboration among its several previously "siloed" divisions. Improved partnerships result in more integrated and efficient use of limited resources to build a more equitable, healthy community. The focus of this practicum was to develop a strategic plan that defines the Hub's vision, highlights opportunities for collaboration, and embraces strategies that incorporate evidence-based practices.

**Methods:** Activities undertaken to develop a strategic plan included: 1) Existing details of each division's current priorities, strategies and performance indicators were identified and assembled; 2) The National Prevention Strategy was used to guide the effort, and evidence-based strategies were emphasized; 3) Current Department prevention strategies were appraised, and other counties' approaches to integrated prevention were reviewed to help direct the plan; 4) Subcommittee planning group meetings and retreats were conducted to consult with divisional team members and incorporate their input; and 5) Meetings with key leaders and stakeholders were held for direction and fact-checking.

**Results/Outcomes:** The first version of the 28-page strategic plan for the Prevention Hub, entitled "Marin's Plan for Better Health and Wellness" was produced. It includes explicit strategic priorities, goals and key performance indicators for future activities conducted by division partners within the Department's Prevention Hub. It also describes the challenges faced by each division, as well as opportunities for continued internal interdivisional and community collaboration.

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**Name:** Kathryn Power  
**Practicum Site:** Massachusetts Coalition of School-based Health Centers  
**Location:** Boston, MA  
**Title:** Data Analysis Intern

**Introduction:** The Massachusetts Association for School-Based Health Care (MASBHC) is dedicated to improving healthcare access and outcomes for Massachusetts children and adolescents. It does this by support, promotion and advocacy of state and local policy. This practicum explored 1) how the presenting problems of children in school-based health centers are diagnosed; 2) how (or if) school-based health centers (SBHC) differ from community health plans in the diagnosis codes they report; and 3) level of physician acuity assigned to these codes. This information is needed to add to the body of existing evidence and inform future policy regarding payment and cost-savings within SBHC

**Methods:** Practicum activities included: 1) SAS analysis of ICD-9 diagnosis codes in 6 separate diagnostic categories; 2) examination of physician-assigned acuity ratings for each code; 3) preparation of a written report; and 4) an oral presentation was made to the Policy Action Group (PAG), an advocacy committee within MASBHC.

**Results/Outcomes:** The information identified in this analysis will be distributed widely through fact sheets and used to educate and enlist multiple stakeholders (community members, politicians, health practitioners, teachers and parents) about the community benefits of SBHC. Additionally, my work with the MASBHC will a) provide sound data to support political advocacy of cost-savings for school-based health centers across Massachusetts, and c) make recommendations for community policies concerning school-based health centers.

# SOCIAL & BEHAVIORAL SCIENCES

**Name:** Sarah Reinstein

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

**Location:** Boston, MA

**Title:** Daily Alcohol Research Telephone Study Research Assistant

**Introduction:** The Daily Alcohol Research Telephone (DART) Survey is an NIH/NIAAA-funded research study at the Boston University School of Public Health. Through collection of surveys and daily self-reports on alcohol use and dating behaviors among eligible youth who present at the Pediatric Emergency Department (PED) at Boston Medical Center, the researchers aim to examine and measure the temporal order of alcohol use and dating violence perpetration. Evidence of a possible causal relationship between the two can help public health practitioners develop interventions that seek to reduce both. The pornography study is an internally funded research study by the Boston University School of Public Health, and is also set in the PED at Boston Medical Center. The purpose of this study is to collect qualitative data by interviewing eligible youth who present at the PED about their use of pornography. This data will then be used to develop and pilot-test quantitative survey questions about pornography use among adolescents.

**Methods:** My role in both studies as a member of the research staff is to 1) approach, screen, and/or enroll eligible participants, 2) track enrollment efforts, 3) call DART study participants for follow-up, and 4) transcribe qualitative interviews

**Results/Outcomes:** Data from both studies will help public health professionals develop assessment tools and interventions to reduce alcohol use and dating violence, and develop new methods of measuring youth exposure and the effects of pornography use on sexual experiences and attitudes among youth, respectively.

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**Name:** Andrea Tingue

**Practicum Site:** Boston University School of Public Health/Boston Medical Center- Department of Pediatrics - bWell Center

**Location:** Boston, MA

**Title:** Health Education/Wellness Intern

**Introduction:** The Boston Medical Center Department of Pediatrics bWell Center aims to fill the support gap in healthcare delivery by providing free education and health resources to improve health and wellness of pediatric patients. The purpose of this practicum was to support the bWell Center's mission of empowering patients, families, and guardians by developing comprehensive wellness guides around specific health topics to be provided in the bWell Center.

**Methods:** Nutrition and parenting were selected as the health topics to be addressed in the wellness guides. Each guide was organized by the age of child and included information and materials specific to both the child and parent/guardian. Practicum activities included: 1) several meetings were conducted with nutrition and parenting experts to gather appropriate content for inclusion; 2) key informant interviews were held with pediatric patients and families for input regarding their nutrition and parenting challenges; 3) relevant information appropriate to the BMC population was synthesized; and 4) locally available/accessible resources related to the health topic were identified for inclusion in the wellness guides.

**Results/Outcomes:** Printable wellness guides were created on the topics of nutrition and parenting. These guides are now used in the bWell Center at the BMC Department of Pediatrics to complement patient medical care. They contribute to increased awareness about relevant health information and where to access additional related support services.

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**Name:** Megan Waterman

**Practicum Site:** Boston University School of Medicine- Department of Family Medicine

**Location:** Boston, MA

**Title:** Healthworks at Codman-Utilization of a free fitness center-based exercise referral program among women with chronic disease risk factors

**Introduction:** Effective models for improving physical activity (PA) in populations with cardiometabolic disease (CMD) could widely impact health, quality, and cost, but best practices have not been established. Exercise prescription is a behavioral strategy with mixed results in this population; removing financial and geographic barriers to fitness center access is another. We examined the health-related correlates of utilization of a 12-week free fitness center-based exercise referral program at Healthworks Community Fitness (HW) among female patients with CMD at Codman Square Health Center (CSHC).

**Methods:** By retrospective chart review, we collected demographic and clinical data for 1,254 women with CMD referred to HW in 2008-9. We constructed logistic regression models to examine whether age, race, diagnosis (diabetes mellitus type 2, hypercholesterolemia, hypertension, depression, asthma, back pain, and weakness/fatigue), BMI, total co-morbidities count, and CMD co-morbidities count were associated with membership activation and program participation.

**Results/Outcomes:** Forty percent of the study sample activated their membership, and of these, 10% had high participation (18+ total visits). In a multivariable model including age and BMI category, high total co-morbidities count was positively associated with activation (OR 1.435, 95% CI 1.007, 2.044), as was Black race (OR 1.578, 95% CI 1.147, 2.171). There were no significant correlates of high participation (18+ total visits) in adjusted multivariable models. The program may differentially appeal to certain subgroups of CMD patients, suggesting that the use of tailored strategies to promote enrollment and retention is needed. We are submitting these findings for publication. HW will use them in grant proposals, and we will present them to providers at CSHC.



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