

Boston University School of Public Health

# Student Practicum Abstracts

Fall 2011





## BUSPH STUDENT PRACTICUMS FALL 2011

The BUSPH Office of Public Health Practice is pleased to present the Fall 2011 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?*

**32 Cities and Towns**  
**6 States across the U.S.**  
**15 Countries**





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# BIOSTATISTICS

**Name:** Jaime Rubin  
**Practicum Site:** DaVita Clinical Research  
**Location:** Minesota  
**Practicum Title:** Lead Biostatistician/Health Economist

**Introduction:** Access-site infections (ASIs) are a leading cause of morbidity and mortality in dialysis patients. In an effort to reduce ASIs, DaVita and Johns Hopkins University employed the Comprehensive Unit-Based Safety Program/ Translating Evidence into Practice model in 30 dialysis facilities in Maryland.

**Methods:** DaVita uses electronic health records to process all clinical patient information (the Clinical Data Mart [CDM]), thus no formal data collection was used for the study. Baseline infection rates (BIRs) and program effectiveness were/will be estimated using the CDM. Zoomerang surveys were administered to help facility participants understand current culture at their clinic before beginning the program. Finally, DaVita requested a budget impact model (BIM) to understand clinical/financial implications of deploying the program village-wide. I was responsible for determining BIRs, analyzing/interpreting results of the Zoomerang surveys, and developing the BIM for DaVita. About 5% of laboratory tests are not processed through DaVita; I attempted to develop an algorithm using antibiotic utilization to identify missing infections.

**Conclusion:** Analytics to identify antibiotic use as a surrogate for bloodstream-ASI were not successful; BIRs were thus estimated using only culture data processed at DaVita. BIR at the 30 pilot centers was 0.134/person-year; infections were stratified by access-type (AV graft: 0.072/person-year; AV fistula: 0.035/person-year; CVC: 0.417/person-year). Results of the Zoomerang surveys were used to identify areas of cultural strength and improvement at facilities. The BIM was built but is not yet fully estimated; this will occur when pilot study results are available. A pre-post analysis will be used to evaluate program effectiveness in February 2012.

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**Name:** Aude Sicsic  
**Practicum Site:** PROMETRIKA  
**Location:** Cambridge, MA

**Introduction:** PROMETRIKA is a contract research organization (CRO) serving the pharmaceutical and biotechnology industries in the areas of clinical operations data management, biostatistics, medical writing, and regulatory submissions. My practicum project consisted of writing a mock protocol for a randomized clinical trial on ORLISTAT, an obesity management drug.

**Methods:** After understanding the extent of what a protocol should include, the first step in writing this protocol was to gather the background information: research the disease the drug is targeting (obesity), research the drug (ORLISTAT), find the safety limits of the approved drug. Since this was a mock protocol, I then determined the objectives and design of the trial (the phase, whether it would be superiority or a non inferiority trial, whether the trial would be blinded and/or randomized, the number of treatment groups, and the duration of the trial). Another important step was to determine ~~assessments of efficacy and safety~~, and the endpoints of this trial. Finally, in the statistics part of the protocol, I computed the sample size the trial called for, taking into account the number of treatment groups, the design of the trial, and the endpoints.

**Conclusion:** I developed a phase 4 non-inferiority protocol for 1320 subjects, I have become aware of the multiple considerations in designing a scientifically meaningful and practically feasible clinical trial protocol. A good protocol balances the need for advancement of knowledge about the product with concern and care for the health and needs of the subjects.

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# ENVIRONMENTAL HEALTH

**Name:** Aya Obara

**Practicum Site:** East Middlesex Mosquito Control Project

**Location:** Bedford, Lexington, and Burlington, MA

**Practicum Title:** Evaluation of Mosquito Larval Development in Rainwater and Bioretention Basins

**Introduction:** Rainwater and bioretention basins are designed to collect stormwater from roofs and parking lots. However, they have the potential to serve as a breeding habitat for mosquitoes if they do not drain before larval development is complete (<5 days). EMMCP was interested in conducting an assessment of the productivity and significance of these stormwater management structures sited adjacent to wetlands that could impact mosquito populations. This is of concern to EMMCP for vector-control of diseases such as West Nile Virus carried by mosquitoes.

**Methods:** Seven sites in Bedford, Lexington, and Burlington, MA were monitored in Summer 2011 for the presence of mosquito larvae and water depth, each measured and recorded after 1-6 days of significant rain events. Data was compiled in Microsoft Excel and evaluated qualitatively by absence/presence of larvae and rainwater. Working with the EMMCP entomologist, mosquito larvae collected from sites were identified and categorized.

**Conclusion:** Data from monitoring efforts were compiled in a report, that will be used by EMMCP and town planners/conservation administrators to 1) document mosquito counts and species identification specific to these locations, and 2) recommend (via EMMCP) physical modifications to sites and/or treat the sites with biological larvicides. Of the three towns monitored, minimal mosquito larval presence was documented. One site in Burlington is of concern as it provides a viable habitat for later-stage mosquito larvae. This was due to standing rainwater for longer periods of time and slower drainage of water during multiple consecutive days of heavy rain.

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**Name:** Felix Zemel

**Practicum Site:** Lexington Health Department

**Location:** Lexington, MA

**Practicum Title:** Determination of Potential Environmental Health Concerns Associated with Siting an Anaerobic Digester

**Introduction:** Anaerobic digestion is a popular means of waste reduction and renewable energy generation worldwide, yet not so in the United States. The need to reduce, reuse and recycle has resulted in individual states adopting significant solid waste reduction policies. The Massachusetts Department of Environmental Protection released a draft Solid Waste Master Plan that sets benchmarks for solid waste reduction to be met in the coming decades. One goal is to annually divert an additional 350,000 tons of organic waste from landfills and incinerators by 2020. The Town of Lexington, MA is interested in siting a large, regional anaerobic digestion facility on the site of its capped landfill. The Lexington Board of Health (BOH) is concerned about the lack of attention to potential environmental health impacts when such a facility is sited in Lexington or elsewhere in the Commonwealth.

**Methods:** Approaches used to evaluate "potential impacts" include a rigorous literature review, site visits, and conversations with people experienced with similar projects. This information provides the basis for reports and communications to the various stakeholders.

**Conclusion:** Documentation of the "potential impacts" are translated into language recommended for Request for Proposals released to potential developers such as: constituents of feedstock; noise control; number of vehicle trips; handling of incompatible waste; and final disposition of the digestate. This was submitted to the BOH in the form of a memorandum, and will be explained to other stakeholders through presentations and the development of a primer describing the technology and any relevant concerns.

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**Name:** Emily Bean

**Practicum Site:** Boston Medical Center, Center for Infectious Diseases

**Location:** Boston, MA

**Practicum Title:** Evaluation of Patient Characteristics and Database Quality at a Public Sexually Transmitted Disease Clinic

**Introduction:** Since March 2011, the Public Health Clinic at Boston Medical Center has provided free sexually transmitted infection (STI) testing and treatment through a grant from the Massachusetts Department of Public Health (MDPH). The program's value can be seen in its large volume of clients and number of STI detections. All information on clients who visit the clinic is maintained in a Microsoft Access database.

**Methods:** STI results were communicated to healthcare providers and the MDPH, and data monitoring and evaluation was conducted to ensure high quality database content. Data on clients who tested positive for an STI since March 2011 were reviewed with medical charts to ensure that the database did not contain missing or incorrect data. Data on a sample of 149 positive clients was extracted from the database and supplemented by medical chart reviews to provide information of social and behavioral risk factors for an STI. SAS was used to assess the frequency distributions of the client characteristics.

**Conclusion:** The methods employed resulted in the detection of discrepancies in the data and subsequent improvement of the database. Results showed that average age of the sample was 31.6 years, with an average of 30.4 lifetime sex partners. The majority of the sample were males, Black, did not use condoms, were not aware of the HIV status of their most recent partner, and were asymptomatic when they presented for STI testing. These results reinforce the importance of sexual health education and testing services for the patient population at BMC.

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**Name:** Rachael Brem

**Practicum Site:** Dana Farber Cancer Institute, Melanoma Disease Center

**Location:** Boston, MA

**Introduction:** Melanoma is the most deadly form of skin cancer, with a 5-year survival rate of just 15-20% for metastatic disease. Chemotherapy treatment options for metastatic melanoma are very limited.

**Methods:** During my practicum at Dana-Farber Cancer Institute, I worked primarily on two clinical trials. One was a multi-center trial involving the drug imatinib (Gleevec), for which I reviewed site binders to ensure that all regulatory documents were accounted for. I verified that all protocol versions had been reviewed by each site's IRB, that we had documentation of all continuing reviews, all versions of the consent form had been approved, and all required forms and documents (including FDA Form 1572, lab accreditations, investigator CV's, etc) were up-to-date. For another study, which involved compassionate use of the drug ipilimumab, I reviewed individual subject binders to ensure that all documents were accounted for, all CRF's were complete and all adverse events had been tracked through the appropriate dates.

**Conclusion:** Clinical trials at DFCI must be run in accordance with FDA and IRB guidelines. Requirements include maintaining updated documentation of all regulatory documents, as well as maintaining required documents for individual study participants. More effective treatment options for metastatic melanoma are needed, and both imatinib and ipilimumab are newly-approved drugs which have the potential to increase survival rates among this patient population.

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**Name:** Isaac Burrows

**Practicum Site:** Brookline Health Department, Emergency Preparedness

**Location:** Brookline, MA

**Introduction:** The Division of Emergency Preparedness in the Brookline Health Department offers the opportunity every year for a graduate level intern to assist the division Director of Emergency Preparedness for the Town of Brookline. Activities include attending a variety of division and area meetings/trainings, updating several different databases for the Medical Reserve Corps, assisting with the fall influenza vaccine clinics, and being a part of any public health response to emergencies as they arise.

**Methods:** This internship consisted of various smaller projects, the many of which revolved around Brookline's medical volunteer group, the Medical Reserve Corps (MRC). A new master database for volunteers was created, correspondence with volunteers concerning contact information and background checks was conducted, social media pages were initiated (Facebook/Twitter) for increased information flow, and new templates for identification badges were designed. The other main focus of the practicum centered on outside partnerships and relationships. Regular meetings were attended with state and region health officials, multiple trainings with MRC members were observed, and responsibility for patient clinic flow was conducted in large influenza vaccine dispensations.

**Conclusion:** The Director of Emergency Preparedness now has additional tools to use in managing over 200 volunteers, with the completed projects requiring minimal or no maintenance. Over 600 persons were vaccinated as part of the influenza clinics without any major challenges, and the staging and implementation demonstrated the foundations of how dispensation would take place in a true emergency.

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# EPIDEMIOLOGY

**Name:** Nicole Germino  
**Practicum Site:** International Diabetes Federation  
**Location:** Boston, MA  
**Practicum Title:** IDF Stepped Model Approach

**Introduction:** This practicum examines applying a stepped approach model in order to estimate the global prevalence of gestational diabetes mellitus (GDM) using data from previous literature to calculate estimates while adjusting for undiagnosed diabetes. Establishing the true prevalence of GDM requires knowing the prevalence of undiagnosed diabetes in the population and adjusting estimates accordingly. This literature review was conducted in order to provide general insights into the major features of the model and difficulties in generating global estimates of gestational diabetes in preparation for a presentation at the World Diabetes Congress in Dubai 2011.

**Methods:** This practicum involved literature reviews of population and hospital-based studies measuring the prevalence of gestational diabetes and literature research on country-specific population data. Three country-specific populations were examined to extrapolate information of gestational diabetes prevalence from hospital-based and population-based studies and applying country-specific data in order to draw an estimate of GDM in each country.

**Conclusion:** After adjusting for the proportion of undiagnosed women with diabetes mellitus in the population, the IDF Stepped Model Approach calculated conservative country-specific estimates in comparison to the observed prevalence of GDM calculated in the published literature studies. The calculated estimates demonstrated an average decrease in the prevalence found in the published literature after adjusting for the representative and undiagnosed diabetes in the population. The model provides a framework from which to predict global estimates of GDM from studies with minimum information to studies with more detailed information describing the study population. However, difficulties arose in extrapolating data that was lacking from certain studies.

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**Name:** Samuel Goldman  
**Practicum Site:** Community Rowing Inc.  
**Location:** Boston, MA  
**Practicum Title:** Row Boston Health Outcomes Research

**Introduction:** The sport of rowing has traditionally lacked inclusion and equal opportunities to participate for Boston's urban youth. Community Rowing Incorporated's (CRI) outreach program, Row Boston, serves as the only access to rowing for boys and girls in Boston's Public Schools. Each year, Row Boston's rowers visibly lose weight, develop confidence and self-efficacy, improve their grades, and develop into outspoken leaders. The purpose of this practicum was to design and implement methods to objectively measure the health-related outcomes of participants in the Row Boston program.

**Methods:** Working with several physicians from Massachusetts General Hospital and Children's Hospital Boston, I researched the most relevant outcomes to measure in our study participants. Before students began attending practices this fall, I organized pre-participation physical examinations, conducted by doctors, that measured among other metrics: height, weight, blood pressure, strength and flexibility. Social/Emotional well-being was assessed using a questionnaire which I generated based upon ones previously established, validated, and used in the field. I have compiled all data and begun analyzing baseline trends amongst study participants.

**Conclusion:** In total, I have baseline data from thirty-seven adolescents who completed pre-participation examinations. The design of a standardized method to objectively measure the outcomes of participants in Row Boston allows CRI to better understand the strengths and weaknesses of its outreach programs, to tailor future developments to address unmet needs, and further its goals in serving the health needs of Boston adolescents.

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**Name:** Hari Iyer  
**Practicum Site:** Center for Global Health and Development, Boston University  
**Location:** Boston, MA  
**Practicum Title:** Travelers' Knowledge, Attitudes and Practices Regarding Malaria and Dengue Fever Prevention

**Introduction:** Travelers are at risk for contracting dengue fever and malaria, the two most common vector-borne diseases seen in returning travelers. We surveyed travelers' knowledge, attitudes and planned behaviors regarding these diseases.

**Methods:** Surveys were administered to patients before their pre-travel medical consultations at five travel clinics in Boston. I served as data manager, analyst and lead author on this manuscript. SAS was used to merge datasets, clean the data, create tables and perform tests of significance.

**Conclusion:** We collected 1634 surveys. Of 1591 subjects who reported purpose of travel, 55.8% were tourists, 18.3% were visiting friends and relatives (VFRs), 17% were business travelers, 14.3% were missionary/volunteers (VOL), and 10.9% were education/research travelers (EDU). Of 1606 travelers who reported destinations, 91.3% planned to visit a country with all or some malaria risk, and 65.1% planned to visit a country with any dengue risk. Of 1338 who reported on insect repellent use, tourists (78.8%), VOL (78.5%), and EDU (80.8%) travelers were more likely than all other groups to plan to take repellent. Of 1287 people who reported on bed net use, EDU (25.2%) and VOL (31.4%) were more likely than all other groups to plan to take them. 965 people answered questions on dengue; of those, VFRs were least likely to have heard of dengue (56.1%). Business travelers were least likely to know that mosquitoes transmitted dengue [50.5% (46/91)]. A knowledge gap exists among travelers that needs to be addressed by clinicians.

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**Name:** Maximilian Klar  
**Practicum Site:** Harvard School of Public Health  
**Location:** Boston, MA  
**Practicum Title:** Abnormal placentation after cesarean sections - A metaanalysis

**Introduction:** Placental disorders result in considerable maternal and perinatal morbidity and mortality. A rise in the incidence of placental disorders has been observed concomitantly with the increasing rate of cesarean deliveries. For this practicum, I performed a meta-analysis examining the association of cesarean section and 3 placental disorders in subsequent pregnancies: placenta previa, placenta accreta with its variants increta/percreta and placental abruption.

**Methods:** I searched medline articles published between 1990 and July 2011, cross-referenced the reference lists of the retrieved articles, and identified 5 cohort and 11 case-control studies that met the inclusion criteria for this meta-analysis. I learned to preform literature reviews, data collection/management/analysis and was confronted with publication/misclassification/selection bias and confounding in these studies.

**Conclusion:** In this meta-analysis, women who had a cesarean section had a 40 – 77 % higher risk of developing any form of placental disorders than women who previously delivered vaginally. This increase in risk is comparable to other risk factors such as smoking and maternal age and needs to be taken into consideration when discussing the implications of rising rates of cesarean deliveries.

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**Name:** Asween Marco  
**Practicum Site:** Boston University School of Dental Medicine, Department of Health Policy and Health Services Research  
**Location:** Boston, MA

**Introduction:** This practicum's mission was to devise the most appropriate and efficacious way to implement a smoking cessation program for the clients of the Boston Health Care for the Homeless Program (BHCHP). These clients consist of homeless men, women and children within the greater Boston area. The practicum addresses the need of gathering current smoking prevalence data in the population. This is being done to evaluate the success of an informational and educational program, which would involve the dentist in the smoking cessation process.

**Methods:** Formative research (prior to practicum start) included interviewing all health care providers involved and reviewing literature. This helped develop an effective strategy and informed the creation of the survey. The paper survey was then successfully administered to more than 300 people pre and post-intervention. The intervention involved development and distribution of educational material (pamphlets, posters) relevant to the patients frequenting the facility to increase their awareness about free resources available to them for smoking cessation. The data collected from the surveys was then analyzed to evaluate the effectiveness of the program. Methods for the sustainability of the program were devised.

**Conclusion:** While research for the project is still ongoing, it is hypothesized that getting dental providers involved in the smoking cessation process, having a protocol in place for documentation of a patient's smoking history and increasing patient awareness of available resources to help them quit the smoking habit, would go a long way in making BHCHP and other similar community health centers develop and maintain smoke-free environments.

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**Name:** Lauren Molotnikov  
**Practicum Site:** Massachusetts Department of Public Health, Bureau of Health Statistics Research and Evaluation  
**Location:** Boston, MA

**Introduction:** The Massachusetts Department of Public Health (MDPH) mission is to protect, preserve, and improve the health of all the commonwealth residents. In pursuit of this mission, MDPH participates in the States Monitoring Assisted Reproductive Technology (SMART) collaborative, which is charged with evaluating and improving state-based public health surveillance of Assisted Reproductive Technology (ART), infertility and related activities. The collaborative includes CDC's Division of Reproductive Health, the Society for Assisted Reproductive Technology, the American Society for Reproductive Medicine and state health departments of Florida, Massachusetts and Michigan.

**Methods:** The objectives of the practicum were to assist in preparing: 1) an amended IRB application; 2) a presentation for a national MCH conference; 3) a publishable paper 4) a Massachusetts summary for the CDC SMART webpage. My personal learning goals included a variety of public health writing skills and participation in the process of conducting research.

**Conclusion:** SMART is a large, complex project; the timeline submitted to win the proposal turned out to be less than realistic. An amended IRB application expanding the number of database variables to permit detailed analysis of long-term effects of ART will be submitted shortly. I was able to contribute to a presentation of SMART activities by Dr. Bruce Cohen at a national MCH conference. The paper was put on hold when the lead author switched agencies. The webpage is still in process. During this practicum I have learned that working with multiple government agencies takes patience, planning, dedication and more time than one would reasonably expect.

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# EPIDEMIOLOGY

**Name:** Eghosa Oyegun

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

**Location:** Boston, MA

**Practicum Title:** Pilot study of a health advocate intervention for smoking cessation among public housing residents

**Introduction:** Boston's Public Housing (BPH) houses approximately 10% of Boston's population, all of whom are low-income, and on Sept. 2012, BPH will be smoke-free. However, low-income smokers have low success in quitting smoking. To improve this I participated in a pilot intervention study, among BPH residents, promoting Tobacco Treatment Advocates (TTAs) trained in patient-centered Motivational Interviewing (MI), where the MI-trained TTAs tailor their counseling to individual subjects' readiness to change, and help navigate them through the process. My practicum focused on describing study participants' baseline characteristics, assessing how effectively participants transitioned from recruitment to active study involvement, and elucidating participants' receptivity to smoking cessation resource referrals.

**Methods:** I analyzed study data using SAS statistical Software and Excel, coded follow-up questionnaires using the new QDS questionnaire programming system, and assisted in designing educational Nicotine Replacement Therapy (NRT) pamphlets distributed to BPH residents.

**Conclusion:** Before the intervention, the most common quit method used was quitting 'cold turkey', and the most common quit medication used was the patch. After the intervention, participants were more likely to use professional help to quit smoking. A more effective intervention would increase quit rate among BPH residents preventing them from being evicted from their homes when the smoking ban is enforced in 10 months. In time, this TTA intervention can be extended to non-BPH residents. I am 1st author on an abstract of the study results to be presented at the 2012 Society for Research on Nicotine and Tobacco Conference in Texas.

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**Name:** Meghan Perkins

**Practicum Site:** Harvard Pilgrim Health Care Institute, Department of Population Medicine

**Location:** Boston, MA

**Practicum Title:** The association between low maternal lead levels and child birth outcomes in Project Viva, a longitudinal cohort study

**Introduction:** The goal of my practicum was to determine the association between maternal red blood cell lead (Pb) level in mid-pregnancy and child birth outcomes in Project Viva, a longitudinal birth cohort study of 2,128 mother-child pairs in Boston, MA. Lead has been associated with adverse birth outcomes, including low birth weight and preterm birth. However, the results of previous studies have been mixed and no known study has evaluated the effects of very low lead levels on birth outcomes.

**Methods:** Project Viva has red blood cell lead level on 950 mothers. We evaluated the relationship between maternal lead level and fetal growth and gestational age, treating lead as both a continuous variable and in quartiles. We used linear regression to examine continuous outcomes and logistic regression to examine categorical outcomes.

**Conclusion:** The mean red blood cell lead level was 1.22 ug/dL with a range of 0.10 ug/dL (undetectable) to 4.97 ug/dL. Lead estimates from linear regression models with lead as a continuous exposure were -0.05 for gestational age in weeks (95% CI: -0.22, 0.11), -0.04 birth weight in kilograms (95% CI: -0.08, 0.00), -0.21 for birth length in centimeters (95% CI: -0.44, 0.03) and -0.11 for head circumference in centimeters (95% CI: -0.25, 0.03). Results from analyses suggest there is an association, though not statistically significant, between maternal lead level and birth outcomes. I am hoping to publish my findings in a peer-reviewed journal in the future.

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**Name:** Deepa Raj

**Practicum Site:** Clinton Health Access Initiative, Malaria Department

**Location:** Boston, MA

**Introduction:** For my practicum at Clinton Health Access Initiative, I focused on treatment-seeking behavior for malaria febrile episodes. Malaria causes significant morbidity and mortality globally, and treatment behaviors vary by age group, gender, location, etc. To better understand in which sectors treatment is primarily sought and where to target diagnostic and intervention efforts in malaria-burdened areas, I conducted a PRISMA systematic literature review and meta-analysis with SAS over the relevant literature from 1990 onwards.

**Methods:** Though much is known about knowledge, attitudes, and practices (KAP) regarding malaria illness and treatment, little is known about which sectors are most utilized and which should be the focus of allocating anti-malarial drugs, rapid diagnostic tests, etc. To quantify this, I performed a review through PubMed within the parameters "treatment seeking behavior + malaria," "health seeking behavior + malaria," and "malaria + fever + treatment actions." Additionally, I used relevant sources from two existing reviews on Sub-Saharan Africa. Lastly, national data from Malaria Indicator Surveys and Demographic Health Surveys were included when available. Inclusion criteria centered on quantifiable data collected during actual febrile episodes; data from KAP were excluded.

**Conclusion:** After creating a database, a meta-analysis was carried out with SAS to evaluate where malaria treatment is mostly sought, if at all, and how behaviors differ by age, gender, and geography. Categories were broken down between public/private, traditional healers, home treatment, and no treatment. Data and trends are presented on my poster presentation.

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**Name:** Craig Regis  
**Practicum Site:** New Hampshire Department of Health and Human Services  
**Location:** Concord, NH  
**Practicum Title:** Indoor Air Quality Policy Database

**Introduction:** 5 million American children are diagnosed with asthma, and asthma-related illnesses increase school absenteeism and impair school performance. In August 2010, the New Hampshire legislature passed a bill that requires all local school boards to develop policies that address air quality issues in schools and on school property. My project was to compile a database of local and state policies from across the nation to aid school boards with this task.

**Methods:** I began by familiarizing myself with the EPA Tools for Schools Action Kit, a federal program made available to all schools in the country to assist in detecting indoor air quality (IAQ) problems. I then contacted education leaders who had employed successful IAQ programs in their respective school districts. After extensive interviews, online webinars, and meticulous online research, I was able to assemble a database with examples of local IAQ policies throughout the country as well as helpful tools to assist in IAQ improvement. I submitted my database to the NH Partners for Healthy Schools, who plan to put the database online for the benefit of teachers, administrators, custodians, and other stakeholders.

**Conclusion:** Though impossible to create a comprehensive database that includes all current IAQ policies throughout the country, the database will provide NH school boards with policy templates for everything from integrated pest management to green cleaning. I also submitted the database to a representative at the Environmental Law Institute who hopes to further research local policies that may help other states improve IAQ in their own school districts.

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**Name:** Laken Roberts  
**Practicum Site:** Boston Medical Center, Cancer Center  
**Location:** Boston, MA  
**Practicum Title:** The unique role of the cancer patient navigator and their contributions to reductions in health care disparities at Boston Medical Center

**Introduction:** Established in 2005, the Medical Oncology Patient Navigation program at Boston Medical Center is a grant-funded patient support program that works to reduce disparities in cancer care by identifying barriers that can affect a patient's compliance and completion of cancer treatment. By providing one-on-one assistance to help patients understand their treatment, the Patient Navigation (PN) program seeks to decrease clinic appointment no-show rates and to improve patient care satisfaction.

**Methods:** I worked with the Patient Navigation team to: 1) analyze patient lists and compare the summary appointment status of navigated and non-navigated patients in the hematology-oncology clinic from December 2010 to May 2011; and 2) administer a satisfaction survey for patients that participated in the navigator program. Patients were surveyed about program services and navigator qualities. I attended weekly navigator meetings and BMC-sponsored trainings for community health center navigators in the Boston area.

**Conclusion:** Patients supported by the Patient Navigation program had higher arrival and lower no-show rates for appointments compared to non-navigated patients in the same clinic. The navigated no-show and arrival rates were 5% and 79%, respectively; non-navigated no-show and arrival rates were 10% and 72%. Almost all navigated patients (97%) rated the program as good or excellent, with the most utilized services being transportation (93%), answering questions (88%), and reminder calls (79%). The data gathered from the appointment analysis and patient satisfaction survey were presented at a national oncology navigation poster session and will be used for a grant renewal application for the navigation program.

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**Name:** Laura Tarko  
**Practicum Site:** Schepens Eye Research Institute  
**Location:** Boston, MA

**Introduction:** Dry eye disease (DED) is a chronic disease of the ocular surface characterized by a deficiency in the quantity and quality of tears, damage to the ocular surface, and an unstable tear film. Patients suffer from symptoms of ocular dryness and irritation and a decreased quality of life. To assess the natural history of DED from the patient's perspective, to define the percentage of patients whose condition worsened since diagnosis, and to identify factors associated with worsening.

**Methods:** We sent questionnaires to 800 individuals from the Physicians' Health Study (men) and Women's Health Study (women) who previously reported a diagnosis of DED. Study participants were asked twenty questions evaluating the degree to which various aspects of their DED changed since DED diagnosis.

**Conclusion:** The questionnaire was returned by 398 males (mean, 76.7 years), and 386 females (mean, 70.8 years.) Subjects who reported worsening of DED, were 2.50 times as likely to have reported severe symptoms of DED in the past. Females were 1.40 times as likely to have reported these symptoms. Major factors associated with worsening included female sex, Sjogrens syndrome, and past history of severe symptoms. Age and current usage of glaucoma medications were not associated with worsening. We conclude that severe dry eye worsens with time, but milder dry eye does not. Female sex, Sjogrens syndrome, and a history of severe symptoms were associated with worsening of DED, while age, duration of disease, and use of glaucoma medications were not.

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# HEALTH LAW, BIOETHICS & HUMAN RIGHTS

**Name:** Jamie Merrill  
**Practicum Site:** NARAL Pro-Choice Massachusetts  
**Location:** Boston, MA  
**Practicum Title:** Communications/Policy Intern

**Introduction:** NARAL Pro-Choice Massachusetts (PCM) is the political leader and voice of the pro-choice movement in the Commonwealth. PCM is a state affiliate of NARAL Pro-Choice America with more than 20,000 members across Massachusetts. Dedicated to developing and sustaining a grassroots constituency to protect privacy, guarantee every woman the right to make personal decisions regarding the full range of reproductive choices, including preventing unintended pregnancy, bearing healthy children and choosing safe, legal, accessible abortion.

**Methods:** I aimed to inform our audience of the up-to-date issues surrounding reproductive choice and analyze the current state of access to abortion services in Massachusetts. To meet the communication goal, I worked to maintain an engaging presence on key web-based social networking platforms (Facebook, Twitter, etc) and curated content on the organization's website. To survey and report on the abortion services access, I compiled and analyzed both externally- & internally-generated data to draft/update policy papers.

**Conclusion:** I completed a report: 'Abortion Access in Massachusetts' and contributed to a 'White Paper' on how implementation of the Affordable Care Act will affect insurance coverage of abortion services in the Commonwealth. Undoubtedly, universal access to the full spectrum of reproductive services, including access to abortion services and myriad forms of contraception, and comprehensive sexual education are fundamental to the objectives of the public health community. NARAL PCM aims to meet these objectives by employing varied methods of education to catalyze legislative changes & policy shifts to address deficiencies in access.

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**Name:** Jasmine Plummer  
**Practicum Site:** Department of Health and Human Services, Office of the Inspector General  
**Location:** Boston, MA  
**Practicum Title:** ACA Education and Outreach Intern, Office of the Regional Director, Department of Health and Human Services

**Introduction:** HHS is the federal department responsible for overseeing, implementing and managing the United States' health and human agencies and services. HHS is comprised of ten regions, and New England is Region 1. The Region 1 office is currently focused on outreach and education about implementation of the Affordable Care Act (ACA). HHS headquarters in Washington, DC announces new initiatives, funding opportunities, research and rules almost every day, and it is our office's responsibility to keep stakeholders and the public abreast of these developments.

**Methods:** Utilizing information from HHS, the Centers for Medicaid and Medicare and state government websites and newspapers, I researched news, events, policies and grants related to insurance, healthcare and ACA implementation. I would summarize and organize this information depending on the event, audience, and subject of the Director's presentation.

**Conclusion:** Many ACA provisions will only be implemented if state officials, religious, business and healthcare leaders are in support of the law. The Office of the Regional Director plays an important role in educating the public about the law's provisions and benefits and creating partnerships among stakeholders and government officials so as to begin implementation of the law on the state level. I was able to prepare Christie Hager and our staff for meetings and events with binders, summaries, state level policy updates and other materials.

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**Name:** Heather Zimmerman  
**Practicum Site:** Boston Medical Center, Office of Patient Advocacy  
**Location:** Boston, MA  
**Practicum Title:** Ethics Committee & Patient Advocacy Intern

**Introduction:** The purpose of my practicum was 3 fold: 1.) Help the BMC Ethics Committee become a more robust and integrated part of the BMC community. 2.) As part of the Patient Advocacy team, assist the Bereavement Support Services Committee with updating the Bereavement Handbook for patients and families. 3.) Become knowledgeable about the role of a patient advocate in a major medical center.

**Methods:** 1.) I assessed the strengths and weaknesses of the internal and external web resources relating to ethics at BMC. I researched external web resources relating to ethics at other Boston area hospitals for comparison purposes. I also conducted phone surveys with ethics staff at Boston area hospitals as to membership and operations of their ethics committees. 2.) I reviewed the current BMC Bereavement Handbook to identify information and resources that needed to be updated. 3.) I observed patient advocacy staff on consultations and attended hospital meetings to learn the operations of a patient advocate and the function patient advocacy serves within the hospital.

**Conclusion:** 1.) I prepared a presentation to the BMC Ethics Committee with an assessment of current web resources of the hospital, examples of resources at other Boston area hospitals, and suggestions for improvements at BMC. I wrote content for updated internal and external ethics internet sites and collected educational resources to include on the new sites. 2.) I prepared an updated Bereavement Handbook. 3.) I served as a patient advocate by taking on my own cases.

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# HEALTH POLICY & MANAGEMENT

**Name:** Jenna Barry  
**Practicum Site:** Newton-Wellesley Hospital, Operations Management Services  
**Location:** Newton, MA  
**Practicum Title:** Operations Management Intern

**Introduction:** This practicum examined Newton-Wellesley's CAT Scan Department. The department faces challenges with inefficient patient flow and poor communication. Many scheduled cases do not begin on time, creating backlog throughout the day. These challenges have led to inconsistent patient satisfaction scores with the CT Department falling as low as the 1st percentile against a hospital goal of 95th percentile.

**Methods:** This practicum involved performing CT process observations. Through multiple brainstorming sessions with CT technicians the current process flow, along with issues and possible solutions were established. Development of a priority matrix and of clear roles and responsibilities was achieved through staff input. All of these tools were put into place to create a new CT process.

**Conclusion:** The outcomes desired from this project are to optimize patient flow in the CT department, have 100% on time case starts, improve patient satisfaction to the 95th percentile, and have an average CT procedure time less than or equal to 15 minute. To this date patient satisfaction scores have improved to the 87th percentile and the average procedure time of 15 minutes has been continuously met or exceeded. The newly designed CT process flow will go through the implementation stage in the next few weeks and will then face further review. The practicum work also established a set of business metrics for the CT Department to follow and review long after the project is completed.

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**Name:** Emily Cellana  
**Practicum Site:** Partners Healthcare Corporate Finance  
**Location:** Boston, MA  
**Practicum Title:** Health Exchange Payment Policy Analyst

**Introduction:** Partners leadership has an ongoing interest in understanding how the Affordable Care Act (ACA) will affect its hospitals and the patients they care for. Recently, senior management determined a specific need existed to understand how the ACA-mandated state-based Health Exchange will change coverage and payment policy for the publicly insured patients in Massachusetts that Partners cares for. In order to understand the scope of the potential policy changes Massachusetts will make, I am developing a presentation to show how and why Massachusetts will change how they insure and pay for their covered lives currently in Medicaid or through the Connector.

**Methods:** I researched background information on the Exchange and studied what Massachusetts is currently doing to become compliant with the Exchange for 2014. I collaborated with internal and external subject matter experts to gain an understanding of which populations in Massachusetts will be affected, how Massachusetts will come to these conclusions, what type of federal and state money is involved in restructuring Medicaid & the Connector, and what potential outcomes will come to fruition.

**Conclusion:** Although I have encountered challenges in both acquiring robust data from the state and understanding what model they will develop for 2014, I ultimately have been able to generate a presentation that tells a story of where Massachusetts is now and how the Exchange will change coverage and payment policy for specific groups in 2014.

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**Name:** Arthika Chandramohan  
**Practicum Site:** San Francisco General Hospital, WrapAround Project  
**Location:** San Francisco, CA  
**Practicum Title:** WrapAround Project Intern

**Introduction:** The CDC reports that violence accounts for 51,000 deaths and \$215 million in medical expenditures annually. To prevent recidivism and its health implications, hospitals across the country have employed programs that use intensive case management to intervene in the lives of violently-injured patients, starting from hospitalization. As an intern at San Francisco General Hospital's Wraparound Project (WAP), a hospital-based violence prevention program, I created an evaluation tool to measure the program's impact on client perceptions, beliefs, and violence-related behaviors. Although risk factors of recidivist patients have been well documented, along with program quantitative efficacy, little is known about the direct effect these programs have on social and behavioral confounders.

**Methods:** By conducting literature review, systematic assessment tool analysis, and study design investigation I created a Likert scale qualitative survey instrument to record patient opinions. The tool consisted of 70 questions that assessed five domains of patient experiences and beliefs. The tool will be validated for prospective use in hospital-based VPPs through a pilot and prospective cohort study in the spring, and will be used to assess long term project impact retrospectively with program graduates as well.

**Conclusion:** Baseline data in a small pilot cohort evidenced the clarity and appropriate reading level of the instrument. Of all the questions, those that assessed opinions about community and personal capital offered the most exceptional results. The project's next step will be to formally analyze the validity of the tool and subsequently make it available to all hospital-based violence prevention programs.

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# HEALTH POLICY & MANAGEMENT

**Name:** Jennifer Dutcher

**Practicum Site:** Boston Veterans Affairs Healthcare System

**Location:** Boston, MA

**Introduction:** VA Boston is a large tertiary healthcare system with three main campuses and five Community-Based Outpatient Clinics. It is one of eight medical centers which comprise the VA New England Healthcare. VA Boston is committed to improving the health and wellness of America's Veterans through delivery of quality care, compassion, and patient advocacy.

**Methods:** For this practicum I am working alongside the Associate Medical Center Director. Some of my responsibilities include organizing and co-leading meetings for an improvement project, conducting research for and preparation of an improvement report submitted to a Network Committee, participating in Environment of Care rounds to identify hazards, and holding meetings with leaders throughout the organization. I will conduct research on the Administrative Fellowship program hosted here and develop a handbook for the Administrative Fellow and their Preceptor.

**Conclusion:** For Administrative Fellows entering VA Boston, it is important that they understand VA Boston, Veterans Health Administration, and VA New England Healthcare systems at large. It is also essential that the fellow and the preceptor understand the process to be conducted throughout the fellowship and deliverables required. Upon completion of this practicum, the handbook will: 1) Present a timeline of the entire fellowship; 2) Display contact information for all necessary personnel; 3) Discuss background information on VA Boston, Veteran Health Administration, and VA New England Healthcare System; 4) Examine projects, committees, and organization policies; 5) Recommend a system of updating the handbook.

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**Name:** Varun Ektare

**Practicum Site:** Cedar Associates LLC

**Location:** Menlo Park, CA

**Introduction:** The project aimed to validate a cost-effectiveness analysis model developed by Cedar Associates LLC, a healthcare consulting firm based in Menlo Park, CA. The model was initially prepared for evaluating cost-effectiveness of Victoza, a Novo Nordisk product, from the Canadian public payer perspective.

**Methods:** The cost-effectiveness model that was built using MS Excel. Validation was performed using data from cost-effectiveness analysis for third line anti-diabetics published by the Canadian Agency for Drugs and Technologies in Health (CADTH). I used this data to run the model for base case and sensitivity analyses. The initial version of the model used data from clinical trials of Victoza. I incorporated new data from CADTH report into original model for comparing third line anti-diabetes therapies. In order to do this, I had to update our model, make changes to the user interface and make it compatible to insertion of new data variables. I compared the results from our model with those published in the CADTH report. If the results from both analyses matched, it would be considered as a validation of our model.

**Conclusion:** The incremental cost-effectiveness ratios generated using our model were consistent with those from the CADTH report for base case and sensitivity analyses. Our model slightly overestimated the ICER throughout. More research in the area of decision analysis would enable us to spend resources wisely in healthcare.

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**Name:** Anshuman Goswami

**Practicum Site:** National Committee for Quality Assurance, Product Development

**Location:** Washington, DC

**Practicum Title:** Product Development Intern

**Introduction:** The National Committee for Quality Assurance (NCQA) is a private, 501(c)(3) not-for-profit organization dedicated to improving health care quality. During the summer of 2011, I worked there as a Product Development Intern. I contributed to the development, update and enhancement of NCQA accreditation, certification and recognition programs. I worked closely with all Product Development staff as well as staff from other departments, gathering information and reviewing proposed ideas.

**Methods:** Methods are described for three distinct projects. Assisted with feasibility study: researched background information on trends in the healthcare industry and delivery system including current market trends related to Independent Review Organizations (IROs). I analyzed research, along with internal and external (legislative) input, for health insurance exchanges (an example of an exchange would be the Massachusetts Health Connector). Lastly, I developed and performed an analysis of a concepts survey (using SurveyMonkey) and generated guiding principles for health insurance exchange accreditation. I communicated my analysis by memo, oral presentation, tables and charts. The background knowledge I gained during my health policy/management classes at BU (especially about the Accountable Care Act) helped prime me for better understanding the work I was involved with at NCQA.

**Conclusion:** Following the recommendations of the feasibility study, NCQA decided not to enter the IRO market. The legislative analysis and crosswalk, along with the concepts survey, for health insurance exchanges will aid NCQA in creating a comprehensive accreditation product for health insurance exchanges.

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# HEALTH POLICY & MANAGEMENT

**Name:** Brook Hailu  
**Practicum Site:** South Cove Community Health Center, Pediatrics Department  
**Location:** Boston, MA  
**Practicum Title:** Administrative Staff - Pediatric Department

**Introduction:** SCCHC is one of the many community health centers in Massachusetts. It has a strong focus on the Asian community with two locations in Chinatown, one in Quincy and a second site planned in Quincy. My project involved two branches: evaluating the effectiveness of vaccination policy for children born to women with chronic Hep B, and implementing Meaningful Use of the Electronic Medical Record.

**Methods:** The Hep B project involved looking retrospectively at Electronic Medical Records of visits performed in the pediatric department over the past year to determine the difference in children's immunity after varying vaccination intervals. Following this, I ran a simple difference of proportion test to determine whether the results were significant or not. The Meaningful Use project involved analyzing Federal regulations for MU requirements, creating educational materials for the health center, and then sitting down with individual providers and walking them through the requirements for MU.

**Conclusion:** The Meaningful Use project is ongoing, and will be as long as the Federal requirements change and continue to evolve over the years. The Hep B project succeeded in finding a statistically significant difference and resulted in vaccination policy change in the pediatric department.

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**Name:** Chun-Wei Hsu  
**Practicum Site:** Pharmaceutical Society of Taiwan  
**Location:** Taiwan

**Introduction:** After the commencement of National Health Insurance in Taiwan, the cost of health care has been increasing over time. Three factors are responsible for the increase: aging population, advanced technology, and medicine uses. To solve the financial crisis of National health Insurance, strategies and regulations have been established to address the problem. One way to cut the cost of health care is to cut the use of drugs and even to prevent the disease. Traditionally, pharmacists are only responsible for drug manufacturing and supplement, a study even shows that pharmacy students only see themselves as a drug dispenser. However, pharmacists can do much more. Working with the community pharmacy, pharmacists can reach the goal of identifying potential patients, thus the illness of the patient can be treated earlier and even prevented.

**Methods:** I searched electronic databases and published literature for studies that examined the effectiveness of the service provided by pharmacists in community pharmacy in the world. The service provided could be divided into 6 different categories: prevention, screening program, disease management, Professional Practice, Epidemics, and Disaster.

**Conclusion:** I found different services in community pharmacies in different countries, including Australia, New Zealand, United Kingdom, etc. Services include Tobacco cessation program, alcohol screening, asthma disease management, and some educational programs. Most evaluation shows the improvement of certain illness or patients' perception of the disease. Therefore, it's highly recommended that the services be practiced in every country to reduce the use of drugs and thus the cost of health care.

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**Name:** Maithili Jha  
**Practicum Site:** Vertex Pharmaceuticals, Pharmacovigilance Department  
**Location:** Cambridge, MA  
**Practicum Title:** Analytics within Clinical Development

**Introduction:** Within the pharmaceutical industry, Clinical Trials involve extensive budgets, thorough study design, and complicated timelines. To make sure that the Clinical group is within time/money/design constraints, operations management tools are used to identify process inefficiencies as well as aid in clinical planning.

**Methods:** Compiled a budget tracker using 4 milestones from our clinical timelines, analyzing variances in budgets by phase and compound. Used Ms Project to gather information on clinical timelines: cycle-times, process discrepancies, inefficiencies, and conduct post-mortem analyses of trials. Applied operations metrics to budget tracking and clinical process to start identifying key performance indicators. Also used websites like TrialTrove and BioPharm Clinical to do market feasibility, assessing the competitive landscape for secondary indications and future programs.

**Conclusion:** The budget tracker was used as a platform to incorporate better forecasting tools, as well as reason to further evaluate the assumptions used in creating a budget. The analysis of the clinical timelines and associated business practices has launched an IT driven data warehouse project. Inefficiencies mainly occur between hand-offs within the trial. For example, when/how Medical Writing communicates to Biostatistics and the rest of the Study Execution Team that the study protocol is complete and approved. This project is on going since operations management is a relatively new concept for Vertex Pharmaceuticals.

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# HEALTH POLICY & MANAGEMENT

**Name:** Kate Johnson  
**Practicum Site:** Burlington Board of Health  
**Location:** Burlington, MA

**Introduction:** Local boards of health are invaluable to the health, safety and well being of communities. My work at the Town of Burlington Board of Health was research-focused and centered on environmental health issues, regulatory protocol and planning. My tasks included developing educational brochures, updating renovation and demolition checklists and developing an emergency preparedness plan for the town's food establishments in the case of major power outage.

**Methods:** All duties at the board of health required significant research on environmental health hazards, as well as appropriate safety protocol. In order to accurately update renovation and demolition checklists, it was necessary to investigate regulatory standards at both the state and federal level. Developing an action plan for food establishment emergency response required background research on similar past events across the nation, town data with regard to population, food establishment scope and geographic details, as well as food safety protocol.

**Conclusion:** My work culminated in the development of a seven-page report detailing the research and resulting analysis of the need and plan for action for the Town of Burlington. I presented this report at the Board's monthly meeting, and my plan was adapted and utilized effectively during a boil water advisory, which was issued in Burlington, MA at the end of September 2011.

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**Name:** Rebecca Litner  
**Practicum Site:** IMS Health, Payer Solutions Team  
**Location:** Watertown, MA

**Introduction:** The IMS Health Payer Solutions group provides information, analytics, and consulting services for a variety of clients that range from public policy organizations to health plans. The IMS Institute for Healthcare Informatics used estimates of members from the Payer Solutions Total Cost and Use by Disease product, which utilizes the IMS Lifelink™ Health Plan Claims Database, to create the report, *Healthcare Spending Among the Privately Insured*. The report profiles spending patterns of over 10 million privately insured health plan members under age 65, including those with certain chronic, oncology, auto-immune and other specialty conditions. As part of the practicum, I provided research support and analysis to inform the creation of the Institute report.

**Methods:** 1.) Conducted a healthcare policy & spending literature review, consulting about 1,000 articles from 90 different sources, including NEJM and Health Affairs articles from the past two years. 2.) Manipulated NHES and MEPS data to develop charts showing expenditure, enrollment, and utilization patterns by health care coverage.

**Conclusion:** Findings from the literature review show the relevance of the Institute report for the health care industry and health care policy. The Institute Report will be published by IMS Health in mid December, 2011. This report presents one application of the Payer Solutions Total Cost and Use by Disease product, which provides benchmarks for cost and utilization patterns in various disease and population cohorts.

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**Name:** Espirit Ma  
**Practicum Site:** WHO, Department of Essential Medicines and Pharmaceutical Policies  
**Location:** Switzerland

**Introduction:** Essential medicines (EMs) satisfy the priority health care needs of the population. The WHO Model List identifies the 'common core' EMs. The main objective of this research paper were to comparatively analyze and systematically review China 2009 National Essential Medicine List (NEML) and selected China 2010 Provincial Supplementary EMLs (PEMLs) with the WHO 2011 Model list. Based on data availability, China 2010 PEMLs under scrutiny were from Anhui, Chonqin, Shanghai, Shanxi, and Zhejiang provinces.

**Methods:** Overall, 144 molecules on both the WHO 2011 Model List and China 2009 NEML; 93 molecules were on both the WHO 2011 Model List and the five China 2010 PEMLs; 230 molecules were on the WHO 2011 Model List only; 372 molecules were on China PEMLs only; 22 molecules were duplicated items on all three lists; 7 molecules were duplicates that appeared both on the China 2009 NEML and 2010 PEMLs. The WHO Model List employed a systematic transparent approach with evidence-based selection; while, China followed expert based methods on EMs selection. Only primary care medicines were covered under China 2009 NEML, while the WHO 2011 Model List included both primary care and hospital medicines.

**Conclusion:** Recommendations for the China EMLs are: to adapt more transparent and evidence based methods for EM selection, develop tiered NEML with different levels of care, critically review molecules found to be different between the WHO 2011 Model List and China EMLs, and align sections of the China EMLs according to the WHO framework for more manageable monitoring and evaluation.

# HEALTH POLICY & MANAGEMENT

**Name:** Yerlan Nanarov  
**Practicum Site:** Needham Department of Health  
**Location:** Needham, MA  
**Practicum Title:** Substance Abuse Prevention Intern

**Introduction:** As Program Director of the federal Drug Free Communities (DFC) Grant funded by the Office of National Drug Control Policy (ONDCP) in partnership with the Substance Abuse and Mental Health Services Administration (SAMHSA), the Needham Department of Public Health is committed, among other priorities, to implementing environmental prevention strategies to reduce underage substance use.

**Methods:** The MA Alcohol Sales Tax, repealed after one year of activation, provided vitally needed funding for substance abuse treatment services, education and programs to support Massachusetts residents of all ages. Our goal was to mobilize surrounding communities around this issue via a report. I did research on the alcohol tax repeal in great detail, gathered data on alcohol tax in Massachusetts, interacted with prevention coordinators and communicated with state legislative aides to gather data, discussed with the NCYSAP Program Director to summarize findings and formulate a plan to mobilize stakeholders around the alcohol tax issue. Additionally, I took part in periodic check-ups of restaurants, swimming pools, food facilities, bars and others.

**Conclusion:** I prepared a comprehensive report on the alcohol tax in MA. This report emphasized, among other things, services that were funded during the first year of the alcohol sales tax before its repeal, and the benefits to MA residents in regard to programs and services if the tax is re-instituted. Follow-up is needed to track the outcomes of the project.

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**Name:** Desiree Otenti  
**Practicum Site:** Boston Healthcare for the Homeless Program, Research Division  
**Location:** Boston, MA  
**Practicum Title:** Transition of Care Analyst

**Introduction:** Boston Health Care for the Homeless Program (BHCHP) is transitioning to the patient centered medical home (PCMH) model. The focus of my practicum project involved contacting patients within 24 hours of an emergency room visit or hospital discharge to make sure they have a follow-up scheduled with their PCP. Currently BHCHP receives a fax with the previous day's list of ER visits and hospital discharges from Boston Medical Center (BMC). The project was to create a system where the patients could be called within 24 hours.

**Methods:** My task was to answer the following questions: How long does it take to enter the BMC fax data into the EMR and who should be responsible? What type of report should IT generate? What is the call process and who should be making the phone call? How can this process be integrated into current clinic flow?

**Conclusion:** I proposed that front desk staff enter this data and that the nurse make the phone call. The final draft of the report is not yet complete as IT is working on composing the report from live data. The next step will be to use the final version of the report to call patients and see how long this entire process takes.

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**Name:** Lalithya Reddy  
**Practicum Site:** The Ryan White Program  
**Location:** Boston, MA  
**Practicum Title:** Cost Analyst for Ryan White Program

**Introduction:** The Ryan White Program is a federally funded program under HRSA (Health Resources and Services Administration) that provides healthcare services for low-income AIDS patients. This program works with community-based organizations to provide resources for about half a million patients each year. Part F of this plan specifically offers dental care coverage to about 14 different sites across the country. The objective of this project was to provide a cost analysis for where costs could be reduced and technical steps to achieve this were developed for each site.

**Methods:** Five dental insurance fee schedules were assessed and low, medium, and high cost values were used to obtain a budget range. These fee schedules were ADA, Miami/Dade County, Delta Dental, Boston Public Health Commission, and Guardian. These costs were applied across different service categories. The database was analyzed with SAS, which was over a 24-month utilization period using 2178 patients as the total sample size. "Outliers" were those services that were not frequently done and were adjusted for in the results. After the low, medium, and high cost ranges were obtained from the first year, they were then repeated for the second year of utilization.

**Conclusion:** The cost range per patient from low to high for these dental care services is \$614.82, \$1,291.50, and \$1,851.93. In conclusion, it would be more cost-effective to use the low-range fee schedules, which were Miami-Dade County or Boston Public Health Commission. Another cost-saving measure would be to promote preventive dental care measures to lower costs.

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# HEALTH POLICY & MANAGEMENT

**Name:** Elaine Shu

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

**Location:** Boston, MA

**Practicum Title:** Research Assistant

**Introduction:** Although HPV vaccination has been available for males since 2009, uptake remains low. This mixed-method study aimed to describe attitudes related to HPV vaccination in White, Black, and Latino parents of sons, to assess uptake of HPV vaccine among their sons and to determine if physicians are offering HPV vaccination at a level consistent with parents' interest in this vaccine.

**Methods:** I interviewed parents of boys attending an urban academic medical center (Boston Medical Center). I collected demographic information, knowledge and attitudes related to HPV vaccination, parents' intent to vaccinate sons, and HPV vaccination rates. Descriptive statistics and qualitative methods were used to analyze data.

**Conclusion:** Most parents were mothers, married, practiced a religion, had completed high school or college, and knew little about HPV. Parents overwhelmingly preferred to receive vaccine-related information from physicians. Consistent with this, 79% of parents intended to accept HPV vaccination if recommended by physicians; no ethnic differences were noted. However, more Latinos received vaccination than Blacks or Whites, consistent with lower rates of "missed opportunities" (failure to vaccinate interested patients) among Latinos. Although parents in this study had limited understanding of HPV and the role of HPV vaccination in males, most would vaccinate their sons if recommended by physicians. Physicians, however, were not consistently offering this vaccine, reflected by high rates of missed opportunities for vaccination. Future research should explore ways to minimize missed opportunities and capitalize on parental receptiveness toward HPV vaccination for their sons.

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# INTERNATIONAL HEALTH

**Name:** Hayat Abdulkarim

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

**Location:** Boston, MA

**Practicum Title:** The Possible Role of Genetics in the Chronic Kidney Disease Epidemic in Nicaragua

**Introduction:** There are several theories that researchers have formulated to explain the current chronic kidney disease epidemic among young men in Nicaragua. Agricultural chemicals, dehydration, and parasites have all been brought to the forefront as plausible reasons for the development of the disease in this population. However, although some populations may inherently be more vulnerable to this disease, the role of genetics has not thoroughly been examined or researched with respect to this situation.

**Methods:** For my practicum, I performed a review of the literature on genes contributing to kidney disease with special attention to APOL1. I also looked at the genetic predisposition of certain populations to develop chronic kidney disease (i.e. racial admixture) and performed an assessment of basic methods that would be necessary to study the effect of genetics. My field adviser, Dr. Daniel Brooks, and I had a meeting with Dr. Friedman, a medical doctor at Beth Israel with background on this topic, to further discuss the current literature and research. This information was used to write a succinct report for an anticipated funding proposal and organized into a simple website that could be used as a reference in the future.

**Conclusion:** The Epidemiology department is in the process of looking for funding options towards genetics research with respect to this epidemic. The main objectives will be first, to confirm whether or not the CKD phenomenon is hereditary and second, investigate the possibility of an association between the disease and select gene allele risk factors including APOL1.

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**Name:** Ehimen Aneni

**Practicum Site:** PharmAccess Foundation

**Location:** Namibia

**Practicum Title:** BU/PharmAccess Namibia OVC-CARE research intern and Mobile clinic programs evaluation officer

**Introduction:** The Mister Sister Mobile Clinic, a fully fledged primary health care (PHC) program, was set up to provide much needed yet difficult to access PHC to rural areas in Namibia. The clinic evaluation was conducted to compare the services of the clinic with that expected by the Namibian health ministry, to elucidate the difficulties faced by the health care providers and to determine the need for other health professionals especially a physician in the clinic.

**Methods:** From a thorough examination of PHC policies in Namibia, an extensive check list of services expected by a PHC was created and used as an evaluation tool. To determine the clinic staff competencies and to understand the clinic's field operations, informal interviews of the clinic staff and clients, and personal observation of the clinic was conducted. An analysis of the clinic's operating times including the duration spent to attend to each client was done in order to determine where clinic delays arise.

**Conclusion:** HIV and TB services in the clinic should include provision of antiretroviral and anti-tuberculous medication. Health education should be conducted on a regular basis by trained health educators and provisions for visual screening, an integral aspect of school PHC in Namibia, should be made. Though not required on a regular basis, a physician's input is occasionally required. In the future the mobile clinic should be a source of relevant primary health care research including environmental and mental health, two areas most neglected in primary health care.

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**Name:** Dominique Chambless

**Practicum Site:** Vestergaard Frandsen West Africa Ltd.

**Location:** Accra, Ghana

**Practicum Title:** Vestergaard Frandsen's Humanitarian Entrepreneurship Field Study/Consultant - Water Portfolio (HWTS)

**Introduction:** Vestergaard Frandsen (VF) is a for-profit company that invests in technologies to mitigate waterborne disease. Their latest product, a household water filter, was created to improve the quality of water before consumption; but a lack of interest and financial support from donors and government in water quality interventions has made distribution of VF's product challenging. VF therefore commissioned three Boston University (BU) students to research and to analyze the current benefits of household water treatment and safe storage (HWTS) and create a presentation aimed at increasing donor and government interest.

**Methods:** As a consultant, I spent two months at the VF office in Accra, Ghana, working as a team with two other BU students conducting research on the health impacts of HWTS. The research entailed gathering secondary source data on health outcomes and cost effectiveness of water quality interventions from NGOs and government agencies in Accra, as well as performing our own qualitative interviews to assess the importance of safe drinking water to Ghanaian people.

**Conclusion:** Our research revealed that HWTS is a low cost, effective, accessible, and culturally acceptable solution to improve drinking water and prevent diarrheal disease. It is proven more effective than source water treatment and even sanitation. These results were compiled into two formal presentations, one for donors and another for the government of Ghana that could be used as an advocacy tool by VF in the future.

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# INTERNATIONAL HEALTH

**Name:** Anne Chapman

**Practicum Site:** Abt Associates Inc., International Health Division

**Location:** Vietnam

**Practicum Title:** HIV/AIDS Harm Reduction Implementation Assessment

**Introduction:** The Vietnam HIV/AIDS Law came into effect in 2006 and its guiding Decree 108 supports the implementation of harm reduction activities throughout the country. However law and legal framework application varies between provinces depending on several factors including political commitment and the understanding, attitudes, beliefs and practices of local authorities toward harm reduction. Abt Associates, in conjunction with USAID, will assess the collaboration of local authorities and scale of harm reduction implementation within nine PEPFAR provinces.

**Methods:** I worked directly with the consultant team who lead the assessment and developed the full assessment protocol as well as the assessment tools. Responsibilities included extensive literature review of then current situation of prevention programs throughout Vietnam, review of barriers and key stakeholders relevant to harm reduction assessment, writing of assessment protocol for submission to USAID, creation of quantitative questionnaire and creation of guidelines for qualitative interviews with relevant stakeholders.

**Conclusion:** The development of the full assessment protocol and assessment tools, along with appropriate revisions guided by USAID and other stakeholder's comments, is essential to the completion of this assessment as these deliverables will be used by the project's researchers over the following four months.

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**Name:** Cassandre Chipps

**Practicum Site:** Partners in Health, Zanmi Lasante

**Location:** Haiti

**Practicum Title:** Evaluating Services to OVC in the HIV program at Zanmi Lasante in Rural Haiti

**Introduction:** Zanmi Lasante started a program for orphans and vulnerable children (OVC) in 2006 by conducting support groups in two sites, and then added more services to the program. In June 2011, Zanmi Lasante initiated the program in their last site. This is the first evaluation conducted since the implementation of this program

**Methods:** Throughout summer 2011, the "Assistant Director of Mental Health and Psychosocial Support" and I conducted in 11 sites a structured interview with the social worker of each site. In addition, we completed one focus group, with ten adults and another with ten OVC in each site (22). A report was drafted summarizing the findings and proposed recommendations for improvements.

**Conclusion:** The services provided to the OVC varied among sites. The budget is similar in all sites and does not depend on the number of OVC on the program. For instance the school assistance in one site gave 600gdes (\$75 US) for one OVC and two gave 1000gdes (\$125). Access to the hospital differs in the different sites as well. In most sites the OVC get free care for a small fee of 25gdes up to 50gdes. However, in a few, the children have access to the hospital for free. Treatment depends on the sites or the implication of the social worker.

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**Name:** Elizabeth Daube

**Practicum Site:** USAID/UGANDA, Summer 2011 Internships

**Location:** Uganda

**Practicum Title:** Addressing gender inequality to reduce HIV/AIDS

**Introduction:** The AIDS Support Organization (TASO) provides HIV prevention and management services at 11 centers throughout Uganda. Gender inequality is increasingly viewed as one of the primary factors fueling the HIV/AIDS epidemic. In Uganda, women lack the power to protect themselves from HIV via condom use or monogamous relationships, and they cannot disclose HIV-positive status to partners without fear of violence/abandonment. Females are more vulnerable to HIV infection and often discover their status first via antenatal clinics. I worked to strengthen implementation of TASO's unfunded gender mainstreaming efforts and to identify strategies to reduce GBV among clients.

**Methods:** Training: I developed gender-based violence (GBV) and HIV curricula and facilitated trainings with client volunteer groups and counseling staff. In addition, I interviewed potential NGO partners, compiled GBV resources/referral information and produced tools, including a draft GBV case management form. Evaluation: I worked with the Psychosocial Team Leader at Headquarters to plan and conduct a limited evaluation of TASO's implementation of gender mainstreaming efforts at Mulago, Gulu and Entebbe centers.

**Conclusion:** Training: I trained more than 100 participants, and 100% of counseling staff reported gaining useful new knowledge/skills. Evaluation: My observations of strengths/weaknesses and recommendations for improving TASO's gender mainstreaming programming were incorporated into a document that will influence future policy-making. I also planned next steps with the Gender Committees, such as development of PEP/medical management of rape guidelines.

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# INTERNATIONAL HEALTH

**Name:** Justine Egan  
**Practicum Site:** Opportunity Solutions International  
**Location:** Madagascar

**Introduction:** Malaria is the most common cause of death in children under 5 in Madagascar and is endemic in 90% of the country. Malaria can be effectively treated if care is sought promptly and medication is administered properly. I worked with Opportunity Solutions International (OSI), an NGO working in malaria prevention and microfinance in Madagascar, to analyze a subset of data collected on treatment-seeking behavior among households reporting fever in the month prior to survey administration.

**Methods:** I cleaned data in Excel collected during a study of 420 households conducted by OSI in 12 villages in Madagascar in 2004/2005 on insecticide-treated bed net use and treatment-seeking behavior. I conducted statistical analyses in SAS to determine if there were associations between treatment-seeking behavior and socio-economic status and other demographic factors. I conducted a literature review on treatment-seeking behavior for malaria in sub-Saharan Africa to gather background information and develop a study hypothesis.

**Conclusion:** There were associations between socio-economic factors, age, and treatment seeking behavior among households experiencing fever. A statistically significant proportion of households (23%,  $p < .0001$ ) used medication without seeing a doctor. Although OSI wanted to publish a paper on this study, I concluded the data was not robust enough to publish, since it is missing information on the type of doctor seen; health care available in the villages; the type of pharmacy or health center where medication was obtained; and medication dosages administered. I will prepare a write-up with recommendations for further study should OSI wish to pursue additional research.

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**Name:** Nollascus Ganda  
**Practicum Site:** Boston Medical Center, Department of Radiology  
**Location:** Boston, MA  
**Practicum Title:** Research Intern

**Introduction:** The Department of Radiology performs daily interventions, including procedures like liver biopsies, abscesses and chest drainages, which are performed using special medical instruments. It has become increasingly difficult to perform these duties due to problems, such as 1) lack of a systemized storage of instruments leading to difficulty in locating supplies; 2) lack of an inventory management system leading to frequent stock outs; and 3) unsecured storage area leading to loss of supplies. This practicum involved the use of Kaizen Event to improve workflow.

**Methods:** Kaizen is a series of highly focused workshops that bring together employees from various departments to examine a problem, propose solutions, and implement changes. It augments, but does not replace, continuous improvement. As a team member, I 1) performed literature reviews on how to perform Kaizen; 2) attended the workshops where I actively participated in the process; 3) collected and reviewed workflow data and schedules; and 4) implemented the changes together with the team members.

**Conclusion:** I visited the department and together with my team identified a new central and secure storage site and explained the new changes to staff members. We also recommended some operational changes some of which include: the development of a new inventory to include only necessary instruments, development of a tracking chart, refresher training for selected staff and a review of procedure cards for faster referencing.

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**Name:** Shannon Heuklom  
**Practicum Site:** Harvard University, Sabeti Lab  
**Location:** Cambridge, MA  
**Practicum Title:** Research Assistant

**Introduction:** Lassa Fever is endemic in several areas of West Africa including Sierra Leone. Of those with aggressive disease mortality is extremely high. Exposures occur through both a vector, the mastomys rodent, and other infected persons. Although the virus is highly infectious many people in the endemic region seem to be immune to the virus. It is theorized that 2 genes are protective against infection.

**Methods:** As a part of the Sabeti Lab at Harvard University I was sent to Kenema, Sierra Leone to setup a Genetic trios to test this hypothesis. Additionally I aided in monitoring a currently running case-control study. My responsibilities included designing the collection kits for the trios study including data forms; collaborating with staff to ensure proper community outreach and consenting and staff training for collections and processing of samples. Work took place at the Kenema Government Hospital and at various village.

**Conclusion:** The study is currently in the collections phase. If the genes are shown to create immunity the information from this study will be used for vaccine and treatment advances as well as a gain a better understanding of a disease that very little is known about.

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# INTERNATIONAL HEALTH

**Name:** Nandini Jayarajan  
**Practicum Site:** Swasti Health Resource Center, Consulting Team  
**Location:** India  
**Practicum Title:** Market Based Partnerships for Health/Center of Excellence

**Introduction:** Swasti, in partnership with Abt. Associates, is developing a program called Center of Excellence (COE), a USAID funded intervention to sustainably improve the health and well-being of poorest households, particularly the marginalized by promoting effective and sustainable Market-based Partnerships for Health (MBPHs) to address the public health needs of Base of Pyramid (BOP) households in India.

**Methods:** I created a working prototype of a MBPH directory that indexes organizations, market intervention models, public health products, and established alliances relevant to the public health market. This was accompanied by a strategic plan that outlines how the directory will be used, maintained, and developed into an interactive, social media platform that can engage all MBPH stakeholders in future iterations. Additionally, I conducted field visits to client sites to report on areas where the COE can support partnerships to benefit BOP households.

**Conclusion:** The MBPH directory is a tool for the COE to facilitate partnerships between organizations and promote cross-learning to create value and maximize impact. It is currently being used to connect organizations to relevant expertise, products and services, different methods and approaches, funding and other resources.

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**Name:** Elisa Koppelman  
**Practicum Site:** ArtCorps  
**Location:** Ipswich, MA  
**Practicum Title:** Development of Artist Impact Evaluation Tool

**Introduction:** ArtCorps is a small non-profit organization located in Ipswich, MA whose mission is to advance social change initiatives by utilizing artists-in-residence [presently 8] in Central American communities partnered with local NGOs, to empower and educate community members in learning new skills, building leadership capacity, and promoting a variety of health-related initiatives. An ArtCorps' priority has been to update the evaluation tool administered to the artists and local NGO partner staff to measure the artist's impact on the community during his/her in-residence term. My focus has been on revising, updating, and redesigning the baseline and end-of-partnership "Artist Impact Evaluation Tool".

**Methods:** I researched ArtCorp's background to gain familiarity with their philosophy, current projects and current evaluation tools. I then conducted a literature review, researching art as a medium for social change, behavior change theories, relevant scales and relevant evaluation tools currently in use. This information was synthesized into an evaluation plan specific to ArtCorps and presented as preliminary findings. Then, the evaluation tool was drafted and a series of iterations evolved.

**Conclusion:** The evaluation tool, currently undergoing final revisions, will be piloted starting in December, 2011. One section will be administered at baseline; results will be studied over time as successive artists are in-country. A second section will be administered at 3 and 12 months; these pre- post- surveys will be compared to measure changes reflective of artist impact on the community in which they were immersed. Information gathered will assist in assessing both artist impact and program planning.

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**Name:** Breanne Langlois  
**Practicum Site:** John Snow, Inc  
**Location:** Ethiopia  
**Practicum Title:** Formative Research on Care Seeking for Severe Neonatal Illness

**Introduction:** In order to address the high neonatal mortality in Ethiopia, an ongoing study through Save the Children USA- Saving Newborn Lives program- and JSI Research Training Institute is aiming to answer key questions related to the delivery of newborn care services within Ethiopia's existing health system. From June- August 2011, I worked with JSI on the Saving Newborn Lives project in Addis Ababa, Ethiopia to conduct formative research related to willingness of families to seek care and acceptance of referral from Health Extension Workers and Voluntary Community Health Workers.

**Methods:** To prepare for formative research, I provided feedback to project staff on research goals, objectives, timeline, and training guide for field work team. The project manager and I developed the data collection tools and facilitated training of eight project officers on qualitative methods and interviewing techniques. I managed the data collection process by ensuring that notes were properly expanded, translated, and revised. I managed and coded all of the data using NVIVO.

**Conclusion:** The team conducted in depth interviews among 16 recently delivered women, 16 husbands of recently delivered women, 8 HEWs and 8 VCHWs. In addition, 4 focus group discussions were conducted with grandmothers. Data from field sites captured community perceptions of newborn illness, willingness, and barriers to care seeking, referral compliance, and level of understanding where services are provided. The research was instrumental in providing input to strengthen the community-based approach.

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# INTERNATIONAL HEALTH

**Name:** Jennifer Lavin  
**Practicum Site:** Malaria No More  
**Location:** New York, NY  
**Practicum Title:** Programs Intern

**Introduction:** Malaria remains to be the number one cause of morbidity and mortality among children under five in much of Africa. The long, devastating history has ingrained a “fever equals malaria” mindset into many African societies. However, several other life-threatening diseases share similar symptoms. Net distributions and anti-malaria programs have managed to reduce the proportion of fevers due to malaria, thus making appropriate diagnosis of fever that much more important. Innovations in rapid-diagnostic tests (RDTs) have made the use of such tools by community health workers a feasible method for widespread utilization.

**Methods:** I conducted a literature review of current and emerging malaria diagnostic techniques, including both microscopy and RDTs. I analyzed the cost-effectiveness of using diagnostic tools on all fever cases in malaria-endemic areas. Such a policy is in accordance with the WHO's newly published standards of fever treatment.

**Conclusion:** Costs associated with RDTs are countered by decreased morbidity and mortality resulting from proper management and timely treatment of fever cases. In highly endemic areas presumptive diagnosis remains to be the most cost-effective method, but as malaria prevalence decreases, the cost-effectiveness of RDTs grows substantially. The threat of antibiotic resistant strains could have major ramifications in all areas, regardless of current prevalence. RDTs have the potential to avert such a situation and therefore deserve greater consideration.

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**Name:** Lameck Machumi  
**Practicum Site:** Harvard School of Public Health  
**Location:** Dar es Salaam, Tanzania  
**Practicum Title:** International Clinical Trial Management Intern

**Introduction:** Neonatal vitamin A (NEOVITA) Clinical trial is conducted by Harvard School of Public Health and Ifakara Health Institute in Dar es Salaam, Tanzania. The objective is to assess the effectiveness and safety of neonatal vitamin A supplementation in improving infant survival within the first year of life. Vitamin A supplementation is recommended by WHO for prevention of Vitamin A deficiency and reducing risk of death in children. Vitamin A supplements or placebo are provided to neonates within 48 hours after birth and infants are followed up at the 1st and 3rd days, 1, 3, 6 and 12 months after dosing to record progress, morbidity and mortality outcomes.

**Methods:** I worked with NEOVITA clinical trial in Dar es Salaam from June to August 2011 as an 'old cohort' research assistants supervisor. Old cohort was defined as the study participants recruited before May 2011. I also facilitated parts of training for newly hired field staff, prepared weekly field reports, performed an audit of the pharmacy, designed new standard operating procedures and wrote a training manual.

**Conclusion:** At the end, I had participated in training of more than 40 new research assistants, preparation of the verbal autopsy training manual and a standard operating procedure for subjects who have permanently moved out of the study area. I also organized a special team for follow-up of missing subjects (sweeping team), tracked and documented used capsules in pharmacy and organized a formalized strategy for assigning, tracking and following up with visits for 'old cohort' research assistants.

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**Name:** Neha Maheshwari  
**Practicum Site:** New Hampshire Department of Health & Human Services, Division of Public Health Services  
**Location:** Concord, NH  
**Practicum Title:** Project Manager

**Introduction:** Poor work quality and exposure to a range of health hazards lead to work related injuries and fatalities. These tend to cluster in informal work, lower status and more dangerous occupations. Various studies previously done in the US reflect that low wage, racial, ethnic and linguistic minorities and youth workers are involved in such jobs. Though New Hampshire hosts a large number of refugees and immigrants, their demographic data is missing. This restricts the ability to identify, evaluate and address health disparities. The purpose of this practicum is to assist the principal investigator to carry out the study.

**Methods:** 1) Extensive literature review to identify relevant studies and occupational health questionnaires covering demographic and health disparity issues, 2) coordinating and conducting advisory committee meeting with key stakeholders to better understand the study population and needed data and 3) finalizing survey tools (questionnaire and focus group themes).

**Conclusion:** First advisory committee meeting was held to brainstorm and evaluate the study design data to be collected in the survey. A questionnaire most suitable to address our study need is being developed. The key multicultural organizations have been identified to access the study population. The data collected from the surveys will be analyzed in later stages using the most suitable health data analysis tools.

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# INTERNATIONAL HEALTH

**Name:** Lia Meisinger  
**Practicum Site:** Diagnostics For All  
**Location:** Cambridge, MA  
**Practicum Title:** Assistant Medical Director for Maternal Health

**Introduction:** Diagnostics For All (DFA) is a non-profit company with a unique new technology for putting medical and scientific diagnostic tests onto small pieces of paper. These tests are inexpensive to make and require no refrigeration, electricity, laboratory or special equipment to read. In resource poor or rural settings where access to laboratory equipment, reagents or electricity may be limited, these tests provide a unique opportunity to extend critical diagnostic advances. DFA is developing a panel of tests for use in pregnant women to identify patients with some of the problems that contribute to maternal mortality. In this practicum, I helped plan and develop initial designs for the maternal panel.

**Methods:** I performed literature reviews on test uses, baseline test values in initial target areas, international organizational policies and recommendations of threshold values. I researched and consulted on local work flow with multiple clinicians and facilitated communication, understanding and teamwork between clinicians and chemists

**Conclusion:** Working with chemists and clinicians, we identified specific threshold values to be targeted in development of the diagnostic tests, within the scope of both technical and work flow limitations. Our tests are largely rural-based screening tests for referrals to a higher-level healthcare facility. To prevent unnecessary referrals of pregnant women, a major consideration for us was to minimize false positive results. Multiple design formats of the tests have been developed, and will be assessed at target sites for functionality, ease of use even in barely literate communities, and cultural preferences.

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**Name:** Elizabeth Meuser  
**Practicum Site:** Boston Medical Center, The SPARK (Supporting Parents and Resilient Kids) Center  
**Location:** Boston, MA  
**Practicum Title:** Data Entry and Analysis

**Introduction:** On January 12, 2010, an earthquake devastated the country of Haiti. After the earthquake, a needs assessment of the psychosocial impact of the earthquake on Haitian individuals was conducted. The purpose of this study was to identify the prevalence of post-traumatic stress syndrome (PTSD) and depression among Haitian residents after the 2010 earthquake. This study also explores service utilization and perceived need of mental health services post-earthquake.

**Methods:** Eight months after the 2010 earthquake, Dr. Gemima St. Louis went to Haiti and administered questionnaires to Haitian adults, which included scales to measure PTSD and depression. Questions on perceived need for mental health services were also answered. Data collected from over 400 individuals was entered into SPSS and analyzed.

**Conclusion:** Mean total PTSD score was  $48.2510 \pm 14.58$  and the mean total depression score was  $26.45 \pm 13.24$ . Both scales were found to be reliable ( $\alpha=0.8942$ ,  $\alpha=0.763$ , respectively). There was a statistically significant increase of individuals that sought mental health services after the earthquake ( $p=0.003$ ). Of those that sought mental health services 44% were very dissatisfied with the professional services they sought and 87.1% subjects reported a need for community support services. This study suggests that PTSD and depression after the 2010 earthquake are a problem in Haiti. This assessment demonstrates a need to further evaluate how the earthquake has impacted and will continue to impact the Haitian community so that healthcare providers and public officials can better coordinate mental health services and plan effective interventions to support the community's recovery.

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**Name:** Elena Moroz  
**Practicum Site:** Management Sciences for Health, Improving the Performance of Nurses in Upper Egypt  
**Location:** Aswan, Egypt  
**Practicum Title:** Research and Evaluation Investigator for the Improvement of the Performance of Nurses with MSH in Upper Egypt

**Introduction:** Improving the Performance of Nurses (IPN) is a project operated by Management Sciences for Health and funded by USAID. MSH is a non-governmental organization which strives to apply practical and sustainable solutions to improving health care around the world by engaging the local population. MSH uses creative leadership and management techniques to improve healthcare quality. I worked on the IPN project in Aswan, which engages local ownership of improving healthcare in Upper Egypt through leadership and development training for nurses. I investigated the coaching aspect of the IPN program which was considered the weakest part of IPN. My purpose was to find the weaknesses and strengths of the coaching aspect of IPN and provide a recommendations report at the end of my research.

**Methods:** I developed an IPN Coaching Assessment Report by: 1.) Creating a questionnaire for data collection; 2.) Creating good and bad coach criteria; 3.) Interviewing nurses and coaches; 4.) Analyzing qualitative data; 5.) Creating coaching recommendations.

**Conclusion:** My research showed that the greatest weakness of the coaches was that they did not receive any coach training. Thus, I recommend that coaches receive coaching training, which should include the following aspects: communication skills, how to make indicators, how to be an assertive leader, how to make and use meeting reports, monitoring and evaluation, conflict resolution, motivating, negotiating and the challenge model in greater detail.

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# INTERNATIONAL HEALTH

**Name:** Tricia O'Donohue

**Practicum Site:** Zanmi Lasante

**Location:** St. Marc, Haiti

**Practicum Title:** Nursing Professional Development Program, l'Hôpital Saint Nicholas, St. Marc, Haiti

**Introduction:** Partners in Health (PIH) is committed to providing medical care in Haiti. In an effort to improve quality of nursing care at l'Hôpital Saint Nicholas (HSN), PIH is implementing a Nursing Professional Development Program. Over the course of 3 years, two Haitian Clinical Nurse Educators (CNEs) will create a center of Nursing Excellence by providing bedside skills based nursing education and mentoring. My role was to work with the PIH team on developing and implementing the first phases of the program.

**Methods:** I conducted a 4-week nursing needs assessment at HSN through one-on-one interviews, focus groups, and observation allowing me to understand what the nurses want and need to improve care. I began program implementation based on results of the needs assessment, this included: 1) defining the program for the CNEs; 2) building relationships by working with local staff; 3) providing continuing educational sessions; 4) identifying systems issues that are a key component of improving care and making education effective; and 5) creating a job description and conducting interviews for the CNE candidates.

**Conclusion:** Utilizing my nursing background and international health knowledge I have instructed nurses on basic life support for adults and children and improved morale and motivation through education. I also assisted in restructuring of the Emergency Department to improve patient flow, creating a triage system to improve patient care. Upon completion of the practicum key elements will be in place to have local CNE's assume responsibility for education and mentoring ensuring sustainability of the program.

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**Name:** Linda Oyesiku

**Practicum Site:** Center for Studies of Sensory Impairment, Aging and Metabolism (CESSIAM)

**Location:** Guatemala City, Guatemala

**Practicum Title:** Research Assistant

**Introduction:** As part of the research program at CeSSIAM, a Guatemala City-based organization dedicated to nutrition research in Guatemala, I assisted a study testing the ability of two non-invasive hemoglobin detection devices to screen for anemia. The goal of this study is to examine the accuracy of two devices in the detection of hemoglobin amongst differing settings and study populations against the standard blood sample. I also assisted a study on infant and young child feeding (IYCF) practices. The goal of this study is to describe the feeding practices and to identify positive deviants for the community to learn from. The purpose of this practicum was to conduct field tests of the devices and perform preliminary analysis of their performance; and to assist in the collection of anthropometric measurements of children and their mothers.

**Methods:** I worked with the Principle Investigators of the study to 1) collect data using the devices in the field; 2) measure children and their mothers; 3) input data for statistical analysis.

**Conclusion:** Preliminary data showed that one device performed better than the other but neither device effectively screened for anemia. The data from the infant and young child feeding study is still being collected but preliminary data has explained the use of ritual fluids and the prevalence of stunting to be similar to previous national surveys. The data on the mothers BMI during lactation and nutritional status of their child is being analyzed for my CE to describe the dual burden of malnutrition in Quetzaltenango.

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**Name:** Micah Pepper

**Practicum Site:** Fundación Cardioinfantil - Instituto de Cardiología

**Location:** Bogota, Colombia

**Practicum Title:** Chagas Disease Research Associate

**Introduction:** Chagas disease (CH) is common throughout Latin America and is caused by the parasite *Trypanosoma cruzi*, most commonly transmitted by the triatomine bug. Between 8-10 million people are infected with *T. cruzi* in Latin America and between .7-1.3 million people in Colombia. Of those infected, 30-40% of people will develop chronic symptomatic Chagas disease, of whom around 30% develop cardiac disorders such as cardiomyopathy and heart failure. Treatment of CH in patients who develop heart failure follows the same protocol as treating patients without CH (no-CH) who suffer the same cardiac disease. However, because most people living with CH in Colombia are from lower socioeconomic background, access to medical care is limited. In addition to limited access, there is a general perception that CH patients receive poorer quality care when compared to no-CH patients. This study was designed using a retrospective cohort to address the question of health management equality between CH and no-CH patients hospitalized for heart failure at FCI.

**Methods:** The study reviewed medical files for patients hospitalized for heart failure between 2001-2011 at FCI in Bogota, Colombia. Each Chagas patient (n=41) was matched with 2 non Chagas patients (n=77). Data analysis using SPSS was performed to compare patient clinical and pharmaceutical management.

**Conclusion:** Patients hospitalized for heart failure received similar clinical management, independent of cause (CH or no-CH) at FCI. Differences in time until re-hospitalization were observed. The study would benefit by confirming and extending it to other medical institution in Colombia.

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# INTERNATIONAL HEALTH

**Name:** Alison Puckett

**Practicum Site:** Jefferson County Public Health

**Location:** Port Townsend and Chimacum, WA

**Practicum Title:** Jefferson County School Based Health Clinic

**Introduction:** The Jefferson County School-Based Health Centers (JCSBHCs) were established in the fall of 2008 after a need for consistent and comprehensive medical and mental health services for teens was expressed by the local school communities of Port Townsend and Chimacum, WA. Two high school SBHCs provide healthcare access to vulnerable adolescent populations where one in five children under the age of 18 live in poverty. In addition to providing direct services, the SBHC provides underserved and uninsured teens health education, and referrals to appropriate state insurance programs.

**Methods:** To determine whether there are gaps in need and services provided at the two SBHCs, I analyzed clinic data (frequency analysis) from the previous two school years to see which services were being utilized. I also worked directly with over 30 uninsured students on insurance applications, and started a youth taskforce to help pool together resources in the community for homeless or housing insecure teens.

**Conclusion:** Clinic data showed that 138 students at Chimacum (320 enrolled) made 433 visits and 120 students at Port Townsend (520 enrolled) made 315 visits. More students at Chimacum utilized the SBHC than Port Townsend (43.1% of student body vs. 23%) during the previous school year. While students have access to all types of medical services at the SBHCs, the most common services provided were reproductive health/birth control (C= 185 visits, P = 162) and immunizations (C= 42, P = 20).

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**Name:** Heather Sauls

**Practicum Site:** Boston Center for Refugee Health and Human Rights, Boston Medical Center

**Location:** Boston, MA

**Practicum Title:** Mental Health Curriculum Intern

**Introduction:** The Boston Center for Refugee Health and Human Rights (BCRHHR) annually hosts social work students for a year-long internship to learn more about mental healthcare and social services for refugees and asylees, specifically survivors of torture (SOT). A need for formalized, structured instruction was identified due to discrepancies between interns' education in specific topics. A weekly course was developed to train social work interns on the complexities of mental health issues in SOT. The goal of the course is to formalize an academic training regarding treatment of asylee SOT to supplement the hands-on experience interns gain while at the BCRRHR.

**Methods:** A literature review on mental health of refugees and survivors of torture was conducted using PubMed, PsychINFO, PILOTS and other databases. Organizational reports, country reports, and media reports were also reviewed. A five question evaluation on effectiveness of course material to be given to interns after each class was created using a Likert scale through Survey Monkey. Additional space was left at the end of each survey for open-response feedback.

**Conclusion:** Based on material from the literature review, brief outlines for each class were developed to guide instructors. The outlines included descriptions of important issues within each class topic as well as suggestions for activities, media use, and assignments. Guest speakers for specific topics were preliminarily identified. Currently six of twenty-six classes have been taught. Intern feedback has been positive indicating that readings have been helpful to practice and interesting. Intern evaluations will be continuously monitored throughout the year. Feedback will be used to shape future training.

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**Name:** Brennan Scott

**Practicum Site:** Clinton Health Access Initiative, Safety and Security Team

**Location:** Boston, MA

**Practicum Title:** CHAI Transition Team Analysis (Developing Operational Systems)

**Introduction:** Founded in 2002, CHAI currently has offices in 25 countries with a Boston-based headquarters. CHAI facilitates access to low-cost essential medicines and strengthens health systems in low- and middle-income countries. CHAI prides itself on hiring people with initiative and in developing innovative programming. However, it lacks policies and procedures to keep pace with its rapidly evolving programs and grants landscape. It is important to have clear expectations and methods of opening and closing programs and offices so that managers can focus their primary attention on improving health outcomes rather than the operational aspects of public health programming. This practicum created tools and a centrally managed process to support country and program teams as they manage the operational issues of major transitions (e.g. record keeping, registration, grant compliance, and risk assessment).

**Methods:** This practicum involved familiarizing myself with another organization's office operations materials. I then collaborated with my supervisor and HQ departments to draft and edit master templates of office opening and closing checklists specific to CHAI internal processes. After discussions with two teams currently in the midst of transitions, I customized the applicable master templates to meet the needs of the transitions.

**Conclusion:** If these checklists are adopted by CHAI in the long-term, a set of standard operating procedures will develop to fill the current void.

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# INTERNATIONAL HEALTH

**Name:** Eileen Searle

**Practicum Site:** Boston University School of Public Health, Department of International Health

**Location:** Boston, MA

**Practicum Title:** Establishing a collaborative organization for nurses interested in global health

**Introduction:** Globally, nurses are the largest cadre of health-care practitioners. My practicum was designed to look at what nurses in the greater-Boston area are doing with regards to global health and to establish a mechanism for collaboration in this endeavor. The mission of the Global Nursing Caucus, from an interdisciplinary and advocacy perspective, is to: exchange best practices, mentor collaboratively, and create a forum for nurses to share, critique global health information, and actively engage in global health issues.

**Methods:** I worked with Dr. Monica Onyango (BUSPH), Dr. Sheila Davis (PIH), Dr. Rosanna DeMarco (BC), and many others to establish the Global Nursing Caucus (GNC). Caucus membership is open to anyone interested in advancing global health from a nursing perspective. I served as the group administrator and tasks included scheduling meetings, maintaining minutes, creating and maintaining a list-serve, and networking to increase Caucus visibility and membership.

**Conclusion:** The culmination of my practicum was planning a seminar hosted by the GNC. This seminar was held on November 12, 2011 and had over 65 attendees representing six hospitals and medical centers, three NGOs, and seven universities around New England. This opportunity was used to learn about the current projects being done in the area of global health at these institutions and see what opportunities are available for collaboration. An emphasis was placed on increasing nursing visibility and nurse participation at the policy level. Review of evaluations is currently underway but initial analysis shows a very favorable response.

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**Name:** Melanie Silverman

**Practicum Site:** Dana Farber Cancer Institute, Center for Community Based Research

**Location:** Boston, MA

**Practicum Title:** Community Based Research (CCBR) India Studies Intern

**Introduction:** Smoking is an emerging public health issue in India as 900,000 deaths a year are attributed to tobacco use. The Center for Community Based Research at the Dana Farber Cancer Institute and the Healis Institute for Public Health are implementing the Mumbai Worksite Tobacco Control Study, which will use evidence-based cessation interventions to reduce tobacco use in 24 manufacturing work-sites. The research team will use Occupational Health and Safety as a platform to deliver the cessation program.

**Methods:** I worked primarily on the pilot study, developing intervention protocols for both management and worker level interventions. I conducted literature reviews on mobile health and dissemination of information. I also drafted IRB amendments, progress reports, and continuing reviews for the study. I validated quantitative research tools by developing survey QxQs, and I was trained in thematic analysis to analyze qualitative research such as key informant interviews.

**Conclusion:** Baseline testing at the pilot sites has already begun, and the intervention will begin in February. Interventions include management-level events such as occupational health consultations and tobacco policy development, and worker-level interventions such as group counseling and quit booklets. Ideally, as occupational health and safety at the worksites improves, workers will improve their own health by quitting tobacco use.

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**Name:** Joy Sylvester

**Practicum Site:** Boston University Center for Global Health and Development, Zambia Center for Applied Health Research & Development - Lusaka Main Office

**Location:** Lusaka, Zambia

**Practicum Title:** Qualitative Supervisor for the Longitudinal Study on Orphans and Vulnerable Children in Zambia

**Introduction:** FHI360 implemented a five year program, the Faith-Based Regional Initiative for OVC (FABRIC) which aimed to improve the wellbeing of OVC by building capacity of faith-based organizations in Zambia. In August 2010 FABRIC closed and the Center for Global Health and Development was contracted to evaluate its impact at project closure and its sustained impact 12 and 18 months later. I was resident in Lusaka, Zambia for seven months where I: 1) coordinated logistics for two rounds of data collection, 2) oversaw qualitative data component including training enumerators, supervising implementation, data transcription, analysis, and reporting, and 3) assisted with quality assurance of the household surveys, data entry, cleaning, and storage, per the protocol.

**Methods:** The study employed mixed methods. Quantitative household surveys were administered to 978 households. FABRIC beneficiaries were randomly selected from a pre-existing program roster and compared to a randomly selected, matched (age-range and sex) community comparison group. Qualitative methods were employed to provide context. Focus Group Discussions were conducted among a convenient sample of study participants. Key Informant Interviews were conducted among FABRIC community volunteers. Quantitative data were analyzed in SAS and qualitative data in Nvivo9.

**Conclusion:** Sustained impact was varied. While school enrollment among FABRIC beneficiaries dropped after the program ended, knowledge imparted was been retained. We discovered high vulnerability among 5-11 year old girls. A report and policy recommendations were submitted to USAID and presented to stakeholders in Lusaka. A sub-analysis of qualitative data will be submitted for publication as my culminating experience.

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# INTERNATIONAL HEALTH

**Name:** Alat Tiginait  
**Practicum Site:** Swasti Health Resource Center  
**Location:** India  
**Practicum Title:** Human Resources for Health Intern

**Introduction:** As part of the Human Resources for Health (HRH) study conducted by Swasti, a non-profit health resource center based in Bangalore, I assisted in data collection on HRH at the national and state levels. Since 2002, Swasti has worked to address the need for social, technical, and managerial resources in the health sector. The purpose of this data collection was to assess the current state of HR based on available literature and field assessments.

**Methods:** Over two months, I collected HR research available online and in print on nine key HR topics and compiled the information for three specific states into case reports. These reports contributed to the literature review and assisted in preparation for in-person state-level interviews. I also travelled to Bhopal in order to meet with key informants and conducted 11 interviews with members of the state planning commission, donor agencies, and other NGOs working on HRH issues. Findings of the interviews contributed to the overall study report. Furthermore, key stakeholders identified through the interview process were invited for follow-up workshops.

**Conclusion:** Initial findings indicate that HR management in the health sector is generally weak or non-existent. Despite many people acknowledging the importance of HR, lack of commitment and unwillingness to take responsibility for HR by the government and other organizations was commonly cited a reason HR programs have been unsuccessful. The long-term goal of this project is to implement HR cells in two state health departments and create a national HRH policy, as none currently exists.

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**Name:** Shamaila Usmani  
**Practicum Site:** Dana Farber Cancer Institute, Center for Community Based Research  
**Location:** Boston, MA  
**Practicum Title:** Community Based Research (CCBR) India Studies Intern

**Introduction:** The Center for Community Based Research (CCBR) at Dana Farber Cancer has collaborated with two reputable organizations on an innovative tobacco control research study in Mumbai, India. The five-year randomized-control study strives to use occupational health as a platform to promote tobacco cessation in 24 manufacturing worksites. The main focus thus far has been to develop the pilot study, currently taking place in two worksites. The preliminary data will be the basis of developing the larger study starting in May 2012. The primary purpose of this practicum was to understand and assist in the complex process of the pilot's intervention development.

**Methods:** I worked closely with the Project Director to develop intervention protocols dealing with survey administration and the kick-off intervention event. I was also trained in qualitative research methods to develop focus group thematic guides, which will be used for further intervention development. In addition, I helped with the revival of CCBR's Wellness-Program by co-planning the autumn potluck and baby picture contest to encourage mingling with members of different projects.

**Conclusion:** The project will incorporate my contributions into the pilot study, as well as the subsequent study starting in May. The ultimate goal is to make this a model program that can be broadly disseminated to other worksites in India to promote safer worksite policies and worker health.

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**Name:** Marisa Van Osdale  
**Practicum Site:** Management Sciences for Health  
**Location:** Cambridge, MA  
**Practicum Title:** Center for Health Services Intern: Non-communicable diseases

**Introduction:** Non-communicable diseases (NCDs), such as cancers, diabetes, and cardiovascular diseases, represent a growing health burden for developing countries. Management Sciences for Health (MSH) is committed to strengthening current health systems in developing countries to adequately address NCDs. To do this, MSH needed to draft a series of strategic papers to assess the external landscapes of the NCD field as they create projects to tackle NCDs.

**Methods:** I worked within the Center for Health Sciences to coordinate and define MSH's role as a leader in the NCD field. I performed literature reviews of articles written by experts from outside organizations to compile an evidence-base to help develop the MSH strategy. I attended weekly internal meetings to plan for further action regarding the strategy.

**Conclusion:** During my practicum, I researched NCDs while working with key members of MSH and the NCD Alliance to implement and execute an MSH NCD strategy. I also represented MSH at global chronic disease seminars, such as the Institute of Medicine's "Promoting Cardiovascular Health in the Developing World" and the National Cancer Institute's "Cancer Detection and Diagnostics Technologies for Global Health." NCDs are becoming a new technical topic at MSH as they begin bidding on projects with a chronic care component. Results of my work to build an MSH strategy were presented at the U.N. High-Level Meeting on NCDs that took place in New York in mid-September. At this meeting colleagues used the evidence-base I prepared and sought partners for a pilot program in four developing countries.

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# INTERNATIONAL HEALTH

**Name:** Leslie Verploegen

**Practicum Site:** Uganda Village Project

**Location:** Iganga District, Uganda

**Practicum Title:** Healthy Villages Intern and Team Leader for the Uganda Village Project

**Introduction:** The Uganda Village Project (UVP) promotes sustainable behavior change in rural villages in the Iganga District of Uganda using a village-based model and working with village health teams (VHTs). The goal of the project is to educate communities and facilitate health improvements in the following areas: hygiene and sanitation, safe water, family planning, nutrition, STIs and HIV, and malaria.

**Methods:** Co-leading a team of 6 people, I worked in three villages that UVP started working with in 2009. In June and July of 2011 my team conducted 156 household surveys on hygiene and sanitation, followed up on 48 mosquito nets previously distributed by UVP, conducted 3 shallow well evaluations, and interviewed 63 people about attitudes toward VHTs and UVP. In two of the villages we provided educational sensitizations about nutrition, malaria, safe water, and provided organizational training to the VHTs. We also provided educational sensitizations at two primary schools.

**Conclusion:** Our team was successful in conducting evaluations that will provide UVP with the status of each village. This information will help UVP to adjust their programs, which focus on behavior change and can be hard to achieve in only three years. Although the analysis of the data we collected was not conducted our team observed that some of the VHTs feel motivated and others do not. UVP is scheduled to graduate these three villages from the program in May of 2012, but none of the teams will be prepared to continue their work without direct support from UVP.

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**Name:** Barbara Waldorf

**Practicum Site:** Boston Medical Center, Refugee Center

**Location:** Boston, MA

**Practicum Title:** Assessing adherence to accepted national guidelines for immigrant and refugee screening and vaccines in an urban primary care practice

**Introduction:** In the United States, 12% of the population is foreign born - 36.7 million people. 1 in 3 have arrived since 2000. They face various health issues including high rates of Hepatitis B, HIV, parasites and TB. Primary care providers are challenged by the special needs of immigrants for appropriate screening, immunization and follow up. Identification of immigrants and adherence to clinical guidelines are key issues in caring for this population.

**Methods:** I worked on a research project for the Immigrant and Refugee Health Program, which provides interdisciplinary clinical services to immigrant and refugee families, does research and advocacy at Boston Medical Center, an urban safety net hospital. I did a statistical review and descriptive report of information gathered in a retrospective chart review (100 charts) of provider adherence to accepted national guidelines for immigrant and refugee health screening and vaccines at the primary care clinics.

**Conclusion:** Only 43% of immigrant patients had TB screening, 36% were screened for HIV and 67% did not receive a TD booster. According to these results, care for foreign born patients does not comply with CDC guidelines. Projected outcomes from this study are to suggest that prompts are created within the EMR system; to write and initiate use of a protocol for nurses in primary care clinics to screen all foreign born patients; and to contribute to the education of primary care providers in immigrant health care. These findings will be presented at Grand Rounds in Internal medicine and Nursing at BMC.

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# MATERNAL & CHILD HEALTH

**Name:** Michelle Berardi

**Practicum Site:** Boston Medical Center, Department of General Pediatrics

**Location:** Boston, MA

**Practicum Title:** Feasibility of Recruiting and Retaining Urban Adolescents in a RCT Utilizing Technology to Increase Prescription Fill Rates of Advanced Provision of Emergency Contraception

**Introduction:** Emergency contraception (EC) is effective at preventing pregnancy. A novel way to increase adolescents' prescription fill rates of EC is via text-messaging reminders to their cell phones. However, the feasibility to recruit and retain urban, sexually active adolescents in such a study remains unclear given issues regarding their access to personal cell phones and no-show rates. Determine the feasibility of recruiting and following sexually active female adolescents presenting to an urban adolescent clinic who have a personal cell phone capable to receive text messages.

**Methods:** A pilot RCT is currently being conducted with sexually active, female adolescents age 13-21 years presenting to an adolescent clinic at an urban safety net hospital. The control group receives an electronic prescription for EC and a brief description of the medication and its indications for use. The intervention group receives the same, in addition to text messages to their personal cell phone on Days 1, 3 and 5 after enrollment reminding them to fill the prescription. Subjects are called six weeks after enrollment to complete a follow-up survey.

**Conclusion:** Adolescents were pre-screened eligible based on their age, gender, insurance status, and current method of contraception. Of 318 adolescents who have been pre-screened eligible, 125 of those patients (39.3%) did not keep their appointments and 42 (63.6% of sexually active patients) have been recruited for the study. While recruitment of this population is feasible, non-compliance with scheduled appointments is a great barrier to recruitment. This must be taken into consideration when designing technology-driven interventions for urban adolescents.

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**Name:** Natalie Butler

**Practicum Site:** Mothers' Milk Bank of New England

**Location:** Boston, MA

**Practicum Title:** Integrating Breast Milk Donation Programs into New England-area Hospitals

**Introduction:** Mothers' Milk Bank of New England (MMBNE) focuses on collection of donated human milk, and the pasteurization and distribution of these donations to mothers and infants who are in need of the nutrients and benefits provided by breast milk. With this mission, many hospitals have utilized MMBNE in their Neonatal Intensive Care Units (NICU's) when providing human milks for infants. At the moment, hospitals wishing to adapt donor milk into their NICU's do not have strong guidelines for planning or administrating these programs.

**Methods:** The practicum was based at the MMBNE and focuses on a project analyzing the various assessments and education programs that each participating hospital creates for the introduction of donated milk within their department. After collecting this data, a streamlined, standardized and assessment was created for future hospitals to work with when adopting a donor milk program.

**Conclusion:** After this curriculum and assessment packet is created, the MMBNE will be able to distribute this information to interested parties, thus expanding the interest in donor milk programs and the ease with which to implement them.

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**Name:** Kara Kimball

**Practicum Site:** AIDS Action Committee, Public Policy and Legal Affairs

**Location:** Boston, MA

**Introduction:** This practicum was conducted at AIDS Action Committee in Jamaica Plain, MA. I was the policy intern, and my activities ranged from preparing testimonies for submission to attending national and state run conferences. This poster illustrates how the policy department at AAC utilizes political advocacy to promote better health outcomes for persons living with HIV/AIDS.

**Methods:** During the first few months of my practicum the budget was the forefront issue. To begin my work, I examined the previous years budget and assessed what line items were critical for the work of AAC. After the Governor's budget was released I worked on testimonies for the House and Senate committees to explain to them the need for HIV/AIDS funding. After submission, I attended the debates and handed legislators facts sheets about HIV/AIDS medical costs and living expenses.

**Conclusion:** This experience illustrated the ups and downs of the political process. At AAC, we saw the HIV/AIDS line item fluctuate by up to 2.5 million dollars. While in the end the budget was funded at a rate lower than the year before, we saw an increase by half a million dollars as compared to the other amended budgets. This experience illustrated how diligence in the political process is crucial to serve persons with HIV/AIDS.

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# MATERNAL & CHILD HEALTH

**Name:** Danielle McCloskey

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

**Location:** Boston, MA

**Practicum Title:** Research Assistant for Women In Control Virtual World Health Behavior Diabetes Study

**Introduction:** The Department of Family Medicine at Boston Medical Center creates and tests innovative approaches to prevent and manage chronic illness. As a member of the research team, I assisted in the recruitment process of the "Women In Control" Diabetes Virtual World Health Behavior study. The goals of the "Women In Control" study are (1) to provide health education to black women with type 2 diabetes and (2) to determine the feasibility of an Internet program used to present the health education. The purpose of this practicum was to analyze the recruitment process as part of the data analysis for the study.

**Methods:** I worked with the Principle Investigator of the "Women In Control" study to: (1) create a map of the recruitment process, (2) determine the rate of recruitment, and (3) interview other study staff members on recruitment successes and failures.

**Conclusion:** Out of 382 eligible participants, we successfully recruited 68 participants, a recruitment rate of 17.8%. Only 4 of these participants went on to not complete the study. The development of the recruitment process map will assist study staff to identify and categorize all possible/actual participants. They will use the map, rate of recruitment, and qualitative information on staff views about successes and failures to analyze further for use in the project's final write up and analysis.

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**Name:** Eden Mohammed

**Practicum Site:** Whittier Street Health Center, OB/GYN

**Location:** Boston, MA

**Practicum Title:** CenteringPregnancy Program Intern

**Introduction:** Whittier Street Health Center (WSHC) in Roxbury provides culturally-competent comprehensive care to predominantly low-income and ethnically diverse communities experiencing significant disparities in health. In 2010, WSHC started CenteringPregnancy, a group prenatal care model shown to improve pregnancy outcomes in populations similar to those served by WSHC. The first participants were due to give birth in March 2011 and beyond. The purpose of the practicum was to establish baseline pregnancy outcomes prior to the start of CenteringPregnancy and to create tracking tools for evaluating CenteringPregnancy program outcomes.

**Methods:** I used departmental database and medical records to generate a dataset containing patient demographic, prenatal care and pregnancy outcome information for all pregnancies with due dates January, 2006 to March, 2011, excluding patients that transferred to other facilities or were lost to follow-up before completion of pregnancy. From these data, I calculated the proportion of preterm and low birth weights as a whole and by different demographic categories to assess disparity and created excel datasheets for easy tracking of program evaluations by participants.

**Conclusion:** The exercise described the baseline WSHC prenatal population's demographic characteristics and birth outcomes for the five years prior to CenteringPregnancy. Low birth weight and pre-term birth rates met the Healthy People goals. However, there were stark disparities in birth outcomes for African American and white women. 9-10% African Americans experienced low birth weight and pre-term births while 5% white women experienced corresponding outcomes. The CenteringPregnancy program, with its focus on cultural competence, aims to narrow this gap in birth outcomes.

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**Name:** Johnna Murphy

**Practicum Site:** Centers for Disease Control and Prevention

**Location:** Boston, MA

**Introduction:** The Green Housing study is study of children with asthma living in green-renovated low-income multi-family housing. Ongoing housing renovations are evaluated for changes in exposures and health outcomes of children living in the renovated homes compared with those living in non-renovated homes. The Research Assistant will assist in subject recruitment and data collection and analysis in order to evaluate exposure and health outcomes.

**Methods:** In Boston, 32 renovated homes and 32 non-renovated homes will be studied. In each of the 64 homes, one child with asthma (ages 7-12 years) will be followed over a 1-year period in order to adjust for possible seasonal effects in exposures and respiratory outcomes. She will collect environmental measurements (allergens, pesticides, Volatile Organic Compounds, Particulate Matter, Temperature, Relative Humidity and Air Exchange Rates) and health-related measurements (blood, urine, lung function test, exhaled nitric oxide and cold/flu assessment) She will also manage lab work and data entry.

**Conclusion:** Although the study is still in the initial phase of data collection and analysis has not yet occurred the Green Housing study will 1) compare levels of certain environmental, chemical and biological agents in green versus traditional housing, 2) ascertain differences in the health of residents with asthma within these homes and 3) assess economic impacts of the greening of housing, particularly those related to health.

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# MATERNAL & CHILD HEALTH

**Name:** Janice Rice

**Practicum Site:** Boston Medical Center, Women's Health Unit, Section of General Internal Medicine

**Location:** Boston, MA

**Introduction:** This practicum was conducted by Ibis Reproductive Health at BMC as part of a research study that explores the themes of stigma and reproductive careers. The study examines if previous stigmatized reproductive events, like abortion and miscarriages, affect women's experiences in prenatal and birth care during later pregnancies.

**Methods:** I conducted 60 out of 155 surveys with English- and Spanish-speaking women, who had just experienced their first live birth, at BMC. Additionally, I conducted a preliminary literature review regarding how academics have previously used the term "reproductive career." I utilized online databases and journals to search "reproductive career" for English-only literature, from years 1911 to present.

**Conclusion:** The analyses of interviews will be conducted in upcoming months. My review of 41 articles revealed themes in the way academics used the term "reproductive career." 1) The term was used as a definition of time as the start and finite end of reproduction. 2) The term was defined by stages that a woman progresses through her lifetime, e.g. being reproductively able, but not having children. 3) It was as a reproductive state that is influenced by factors, like economics and previous birth experiences, to continue or end a woman's reproductive career. The themes form the basis for theoretical framework as a perspective that pregnancy and birth are affected by previous miscarriages and abortions. By using this theoretical framework in public health, research in this area can provide recommendations for delivery of prenatal and birth care that accounts for women's previous experiences.

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**Name:** Natasha Rishi

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

**Location:** Boston, MA

**Introduction:** The Massachusetts Department of Public Health (DPH), the State Title V Agency submitted an application in response to the Funding Opportunity Announcement for the Affordable Care Act (ACA) Maternal, Infant and Early Childhood Home Visiting Program. DPH is the state agency designated by the Governor to apply for and administer these funds for programs across Massachusetts.

**Methods:** DPH conducted a needs assessment across the state to identify the five highest need communities, but with additional funding is currently helping to institute home visiting programs in seventeen different communities. The Massachusetts Infant Early Childhood Home Visiting Initiative (MIECHV) identified the following four evidence based models to use in assessing data across the communities: Parents as Teachers, Early Head Start, Healthy Families America, and Healthy Steps. I am working directly with the training schedule for the several areas being measured in these programs, including: Substance Abuse, Domestic Violence, Education, Family Support, Health and Nutrition, Mental/Behavioral Health and much more. Concurrently, I am helping to develop a life planning tool for the Massachusetts Pregnant and Parenting Teen Initiative that will also be used across the state.

**Conclusion:** This ACA Home Visiting program is a five year grant aiming to better understand the needs of families across each state and to increase the support and infrastructure for a coordinated system of care. Massachusetts has defined several goals for data outcome and overall aims to see an improvement of poor health and developmental outcomes for children.

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**Name:** Molly Ryan

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

**Location:** Boston, MA

**Introduction:** Boston Medical Center (BMC) offers Centering Pregnancy, an innovative approach to prenatal care delivery. Centering is group prenatal care; groups of 12-15 women of the same gestational age participate in a 10-session curriculum throughout pregnancy. Each session includes health assessment, educational topics, and discussion, all conducted in a group setting. The goal of this practicum was to examine and describe how the Haitian group participants' attendance, satisfaction, contraceptive and breastfeeding behaviors, and birth outcomes compare to the BMC Centering population and to other low risk Haitian patients delivering at BMC.

**Methods:** As a research assistant I 1) completed a literature review of Centering literature and acculturation measures; 2) contributed to the development of survey tools to measure patient satisfaction and attitudes toward Centering, social support, contraceptive and smoking behaviors, and depression; 3) audited patient medical records to determine birth outcomes; and 4) collected and analyzed survey and medical record data for trends.

**Conclusion:** Haitian Centering patients were satisfied with their care and appear to prefer groups targeted to their language and culture. Haitian Centering patients had lower preterm birth/low birth weight rates when compared to the Haitian population in traditional care; however, the small sample size prohibits generalization.

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# MATERNAL & CHILD HEALTH

**Name:** Bonnie Wennerstrom

**Practicum Site:** Boston University School of Social Work

**Location:** Boston, MA

**Practicum Title:** Strong Families Strong Forces Provider Liaison

**Introduction:** Military families with young children reintegrating from deployment are at increased risk for mental health problems and other factors that inhibit functioning. Children are especially vulnerable due to their developmental stage. Public health providers must be aware of the unique characteristics of military families to best support them during the process of coming home. Strong Families Strong Forces is a research study at the Boston University School of Social Work focused on supporting military families with young children during the reintegration phase after deployment to Iraq or Afghanistan. The study involves 3 phases: a qualitative interview phase (Phase 1), a pilot program (Phase 2), and a randomized control trial of the revised program (Phase 3).

**Methods:** I conducted analyses on Phase 1 data, which constituted 90 transcribed interviews from military service members and their spouses in New England. I reviewed quotes from these interviews to isolate themes identified by families as most important to successful reintegration, including parenting support, mental health, service needs, and access barriers. To facilitate analyses, I used Atlas.ti to electronically code and report on the themes and sub-themes in the narratives. From here, I will create a webcast to educate public health providers unfamiliar with the needs of this population in order to better serve them.

**Conclusion:** This creation of a short, simple, and easily distributable presentation will allow providers to easily access the basic needs of military families in the reintegration stage, to promote the families' resilience and lower their risks associated with military deployment.

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# SOCIAL & BEHAVIORAL SCIENCES

**Name:** Amanda Barbeau

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

**Location:** Boston, MA

**Practicum Title:** A Phase II Trial of Sleep Apnea Treatment to Reduce Cardiovascular Morbidity (The HeartBEAT Study) - Berlin Questionnaire sub-study

**Introduction:** Obstructive sleep apnea afflicts more than 5% of the population and is associated with poor health in the short and long term such as obesity, heart disease, and depression. Moderate to severe obstructive sleep apnea is associated with a 2 to 4-fold increased risk of developing coronary artery disease. The Berlin questionnaire sub-study aims to determine whether self-reported information on a questionnaire related to obstructive sleep apnea (OSA) are associated with the results from an overnight sleep study done in the home for OSA. Investigators are trying to determine whether there are specific questions on the questionnaire that predict the presence or absence of OSA.

**Methods:** 15 subjects between the ages of 45-75 with established coronary heart disease or people with high risk for developing cardiovascular disease based on the presence of established cardiovascular disease risk factors such as obesity, high blood pressure, and cholesterol were identified by over-the-phone pre-screening questions. If potential subjects passed pre-screening, they were scheduled to come in for completion of the participant visit. The participant visit lasted between 1-1.5 hrs and consisted of completing four questionnaires, anthropometry, and learning how to set up and wear a portable sleep monitor (PSM). Once completed, participants would mail back their PSM, and research associated would upload the data, and send to off-site location to be scored for the apnea-hypopnea index (AHI) score.

**Conclusion:** Results are pending the completion of data analysis. The projected outcomes are to identify specific questions on the Berlin questionnaire that predict the presence of or absence of OSA.

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**Name:** Siobhan Brown

**Practicum Site:** Partners in Health and Housing Prevention Research

**Location:** Boston, MA

**Practicum Title:** Research Assistant

**Introduction:** The Partners in Health and Housing Prevention Research Center seeks to address the unique health challenges faced by residents of public housing through community-centered research and prevention efforts. As part of a research project conducted by the PHH-PRC, I assisted with a research study to assess whether public housing residents' access to health care is improved through the use of Resident Health Navigators (RHNs).

**Methods:** I participated in weekly health screening sessions at four Boston public housing complexes to determine residents' risk for chronic diseases. We measured height, weight, blood pressure, BMI, diabetes risk, self-reported smoking status, and self-report of physician diagnosed high cholesterol. Residents who screened positive in the two intervention sites were connected to an RHN whose role was to help them overcome barriers to care and connect them to health resources. Residents who screened positive in the two control sites were provided with verbal and written health information by a Resident Health Advocate (not an RHN). Additionally, I assisted with the data management through tallying screening data; coding data in preparation for data-entry; and tracking and reviewing screening session attributes such as weather, time of day, and outreach efforts in order to determine factors that may influence participation in the screening sessions.

**Conclusion:** The research study will end in July 2012, so data analysis is not yet complete. The research team hypothesizes that a trained RNH can decrease barriers to care, increase number of kept appointments for primary care, and increase usage of preventative and health maintenance resources.

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**Name:** Allison Fels

**Practicum Site:** Boston Medical Center, SBIRT Pediatric Emergency Department

**Location:** Boston, MA

**Practicum Title:** Health Promotion Advocate

**Introduction:** The Project ASSERT (Alcohol & Substance Abuse Services, Education, and Referral to Treatment) program is part of the of Boston University School of Public Health's BNI ART (Brief Negotiated Interview and Active Referral to Treatment) Institute. It is based on the evidence-based Screening, Brief Intervention, and Referral to Treatment (SBIRT) method to perform emergency room interviews with patients who present in to the Pediatric Emergency Department (PED) at Boston Medical Center (BMC) to universally screen for high-risk behaviors that compromise health and safety.

**Methods:** As a member of the Project ASSERT team, I served as a 'health promotion advocate' (HPA) and performed screenings, brief emergency room interventions, health information, resources, and referrals to treatment for adolescent patients engaging in high-risk health or safety behaviors between the ages of 14 and 22. Upon identification of a risky health behavior a brief negotiated interview is performed to encourage positive health behaviors, and referral to treatment is provided for patients who seek alcohol or substance abuse treatment. As a HPA I also made primary care and behavioral health appointments, provided health education materials, and made referrals to other community resources.

**Conclusion:** Project ASSERT HPAs provide a positive, culturally sensitive, and confidential environment for patients to explore health-promoting behavior changes. Outcomes include reduced rates of adolescent substance abuse, increased access to primary care and behavioral health services, and increased knowledge of risky health behaviors.

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# SOCIAL & BEHAVIORAL SCIENCES

**Name:** Kristen Herrick

**Practicum Site:** Boston Medical Center, Infectious Diseases Clinic

**Location:** Boston, MA

**Introduction:** The HIV/STI Public Health Clinic has received a grant through the Massachusetts Department of Public Health to provide HIV and STI testing and counseling to patients. It enables the clinic to provide free and confidential testing for Chlamydia, Gonorrhea, Syphilis, HIV, and Hepatitis C to patients and free antibiotic treatment to those patients whose lab tests were positive for Chlamydia, Gonorrhea, or Syphilis.

**Methods:** Practicum activities included working with my supervisor to analyze patient information to determine: 1.) who had been tested, 2.) whether or not they had health insurance, 3.) whether or not health insurance was used for their visit and/or treatment provided, and 4.) which tier (used for insurance billing) patients were categorized as based upon exposure and symptom status. I then reviewed the information for patients who had positive lab results using Microsoft Access to provide informational feedback on why this Public Health Clinic is important in this population.

**Conclusion:** The data collected represented patients who visited the clinic during a ten-month period from 1/1/2011 to 11/1/2011. 2,350 patients were seen and 330 received a positive STI lab result (14%). Of the 330 patients, only 89 used their insurance to receive care and treatment (27%). The results suggest that the remaining patients were either underinsured or had no insurance and may not have had access to the care and treatment they needed without this grant-funded free screening and treatment clinic.

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**Name:** Jessica Martin

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

**Location:** Boston, MA

**Practicum Title:** Inpatient Service Formative Research: Process and Outcome Measures

**Introduction:** Starting in October 2012 Medicare/Medicaid will no longer reimburse institutions for patient readmissions within 30 days of index discharge, regardless of the cause of readmission. Identifying factors of preventable readmissions will help hospitals make policy and procedural changes to reduce readmission rates. One source hospitals have begun to analyze is inpatient care work flow inefficiencies, which can lead to suboptimal patient care, a risk factor for hospital readmission. Improvements to inpatient care work flow can directly affect the discharge process, which is known to impact readmissions. The current project used a formative research approach to identify process and outcome measures that will help the inpatient Family Medicine Service at Boston Medical Center to determine trends, how to best use existing resources and strengths, and address weaknesses as they work to re-engineer their discharge process.

**Methods:** I worked with the leadership in Family Medicine and also Patient Safety to determine the appropriate process and outcome measures needed to inform their discharge re-engineering process. The necessary data sources were then identified, organized and tested for accuracy and consistency.

**Conclusion:** Based on the determinations of department leadership the process and outcome measures needed to inform their initiative include: volume, number of admissions, type of admission, number of discharges, time of discharge, readmission rate and length of stay. The data were then organized graphically to show daily and/or weekly absolute numbers and averages. Going forward, these measures will be reported weekly to the entire inpatient staff while the department works to improve work flow efficiencies and re-engineer the discharge process.

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**Name:** Katharine Mooney

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

**Location:** Medford, MA

**Practicum Title:** Tufts' Health Ed Helps You: Broadening Access to Health Education on Campus

**Introduction:** The Department of Alcohol & Health Education (HED) at Tufts University provides undergraduate students with educational resources and services that promote and support a healthy campus community. As part of this mission, my practicum project was to develop an internal website that offered resident assistants (RAs) online access to health education materials, resources, and campus-wide programming to improve students' well-being. Methods: I worked directly with stakeholders in HED, the Office of Residential Life and Learning, and Counseling & Mental Health Services to develop the RA website. My responsibilities included: conducting formative research, including key informant interviews; specifying short-, medium-, and long-term objectives for the website; consulting with stakeholders regarding the website's design, navigation features, and structure; collaborating with stakeholders to identify and collect health education resources and programming; implementing Google Analytics tools to track site visits, page views, and program requests; and presenting the website at RA training.

**Methods:** I worked directly with stakeholders in HED, the Office of Residential Life and Learning, and Counseling & Mental Health Services to develop the RA website. My responsibilities included: conducting formative research, including key informant interviews; specifying short-, medium-, and long-term objectives for the website; consulting with stakeholders regarding the website's design, navigation features, and structure; collaborating with stakeholders to identify and collect health education resources and programming; implementing Google Analytics tools to track site visits, page views, and program requests; and presenting the website at RA training. Results/

**Conclusion:** Consisting of over 50 integrated and cohesive webpages, this website allows RAs to browse, download, print, or request

# SOCIAL & BEHAVIORAL SCIENCES

**Name:** Margaret Swift

**Practicum Site:** Blue Cross Blue Shield of Western New York, Communications Department

**Location:** Buffalo, NY

**Introduction:** Blue Cross Blue Shield of Western New York (BCBS of WNY) is an insurance company with the vision to connect people to high value, innovative options to promote better health and enhance well-being. Over the past year the communications department has streamlined company media to effectively promote the BCBC vision and brand using the tagline “Healthy Changes Everything”. As of June 2011, the Value Added Service package and Wellness web page were two essential forms of media still needing revision. The Value Added Service package provides members with local free and discounted BCBS health services and classes. The Wellness web page is essential for retaining and attracting members, especially as meaningful use provisions roll out. The purpose of this internship was to work with the communications department to increase the awareness and utilization of the Value Added Service package and the Wellness web page.

**Methods:** As a member of the communications team, I participated in the development of the Value Added Service booklet and the Wellness web page. Strategies included segmented population research, competitive analysis, and application of theory-based considerations for effective content, layout, and design.

**Conclusion:** The Value Added booklet is in print and being used by BCBS of WNY as intended. The proposed layout for the Wellness web page will be used to inform future iterations of the site. The practicum provided me the opportunity to apply M.P.H core competencies for the research, development and presentation of two essential media communications.

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**Name:** Whitney Taylor

**Practicum Site:** Boston Area Health Education Center (BAHEC), Youth to Health Careers Program

**Location:** Boston, MA

**Practicum Title:** BAHEC Summer Associate

**Introduction:** The Boston Area Health Education Center (BAHEC), a division of the Boston Public Health Commission, runs the Youth 2 Health Careers Program, a seven-week summer enrichment program for middle and high school students which aims to diversify the healthcare workforce through early exposure to health careers, public health issues, and college preparation. Students take academic and health education classes, participate in internships, and develop leadership skills.

**Methods:** Practicum activities involved design and delivery of a substance abuse symposium, supervision of students in math and science classes, facilitation of student public relations and copyright groups for a Chlamydia prevention campaign through the Boston Public Health Commission’s Infectious Disease Bureau, and coordination of a health career expo for students. Following the conclusion of the program, evaluation and curriculum planning for the academic and summer sessions are in progress.

**Conclusion:** Evaluation of the summer program is currently underway. Course evaluations for the substance abuse class indicate that new and younger students learned new content, while returning students were already familiar with the material. This suggests a need for new health symposia topics for next year. Student evaluations also indicated that teacher effectiveness and internship quality were inconsistent. The staff is currently working to design new curriculum and improve planning and implementation for next year.

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