

# BOSTON UNIVERSITY SCHOOL OF PUBLIC HEALTH CAREER & PRACTICUM OFFICE

**SAMPLE PRACTICUMS** 

#### Sample Practicums: Biostatistics Related

#### **Academic Medical Centers** Clinical trial data analysis using SAS to analyze adverse effects, safety outcomes; may contribute to Examples: manuscripts. **Boston Medical Center** Study design coordination; assist with study protocols Mass General Hospital and study design; work with IRBs; recruit participants; Dana-Farber Cancer disseminate participant communications; general project Institute management. Devise research questions based on study objectives and available data. Define utilization of services based on attendance at referrals and/or follow-up visits. Compute statistical analyses using SAS v. 9.4; if applicable, conduct binomial proportion test to assess statistical significance of utilization rate. **Government Agencies** Create chart abstraction tool; extract and organize information into a database. Examples: Coordinate dataset from GPS and convert into a usable Brookline Health Dept GIS dataset. MA Dept of Public Health Veteran's Administration Compare values between two towns; investigate (MAVERIC) selection bias. **Health Insurers** Analyze cost trends and projections using Visual Basic and SAS/SQL macros to pull data from a database and Examples: generate Excel reports based on ICD-9 codes for high Blue Cross Blue Shield cost claimants/conditions (HCCs). Tufts Health Plan Develop Excel tool to aid in calculating "blended" trends, Harvard Pilgrim combining cost trends based on facility type, physician Healthcare fee-for-service, ancillary/pharmacy, and capitated/global **Beacon Health Options** payments, leaving functionality to expand to future quarters. Analyze member data to find similarities and differences between program populations; present data in user friendly format to show members' behaviors, demographics and ways to better serve them. Identify meaningful outcome measures for implementation of a device; create product sheet for telehealth service, apply Biostatistics background into a program evaluation design.

Research and Consulting Firms  Examples:	<ul> <li>Perform data analysis; identify trends in patient and claims data that lead to strategic decision making.</li> </ul>
<ul> <li>Quintiles</li> <li>BU Data Coordinating Center</li> <li>Harvard Clinical Research Institute</li> </ul>	<ul> <li>Input subject data to the database; summarize study data using SAS; and review content study forms.</li> <li>Conduct data quality control for ongoing trials in preparation for Clinical Trial Final Reports; perform statistical data analysis using SAS to assess medical device product safety; create a Statistical Analysis Plan.</li> </ul>
Pharma, Medical Devices  Examples:  Novartis Takeda/Millennium Cubist	<ul> <li>Prepare for a Medicines &amp; Healthcare Products Regulatory Agency (MHRA) inspection and a mock FDA inspection for two clinical trial studies. Perform Trial Master File (TMF) reviews; update patient recruitment data in the clinical trial management software; and manage submission of study documents into the TMF.</li> </ul>
	<ul> <li>Use SAS and Excel to analyze blood laboratory data in order to examine associations between three blood enzymes.</li> </ul>
Global Health Oriented	Assess pharmaceutical use patterns; investigate issues.
Examples:	Conduct data analysis; analyze country profiles.
<ul><li>WHO</li><li>JSI</li><li>MSH</li><li>NGO's</li></ul>	Collect, clean, code and analyze data; use global health data to conduct reproductive number, mortality risk factor and univariate survival analysis.

#### Sample Practicums: Environmental Health and Hazard Assessment Related

#### **Academic Medical Centers**

#### Examples:

- Boston University
   School of Medicine
- Boston Medical Center
- Boston University
   School of Public Health
- Harvard University,
   Office for Sustainability
   and Office of Work/Life
- Channing Lab, Brigham and Women's Hospital

- Assist researchers to examine how genetics and environmental factors interact on the wheezing and asthma phenotypes in inner-city children and help understand why there is a greater prevalence in urban environments.
- Conduct literature review to synthesize current research on the impacts of governmental assistance programs; analyze cross-sectional data collected in urban hospitals; and determine whether access to food programs promotes healthier eating overall.
- Enroll subjects in study on nasal carriage of Methicillinresistant Staphylococcus aureus (MRSA) among urban homeless in Boston; conduct a comprehensive literature review exploring bacterial infection prevalence, risk factors, and antibiotic usage among high-income country homeless populations to help inform future research on the subject.
- Study changes in Environmental Tobacco Smoke (ETS) infiltration using a previously developed building simulation model. Track airflow and ETS movement across units and estimate the impact that building interventions including weatherization, energy, retrofits and human behavior including window opening and operation of localized exhaust fans have on ETS exposure; contribute to the CASTLE project (A Comprehensive Asthma Simulation Tool of Energy retrofits), a simulation study with the objective of modeling the impact of building-wide energy retrofits on indoor environmental exposures.

#### **Government Agencies**

- Revere on the Move (ROTM) City of Revere and MGH
- Cambridge Department of Public Health
- Massachusetts Joint Committee on Public Health
- Environmental Protection Agency (EPA)

- Investigate the city's food system and research alternative procurement options; build a Community Supported Agriculture program (CSA) in coordination with a local Massachusetts farmer.
- Assess potential threats from hazardous materials; and treat almost 6,000 catch basins in Cambridge.
- Draft memos on current public health issues such as the increase in prescription drug costs and gun violence legislation; draft a policy brief on Massachusetts' health care quality measurement activities.
- Develop written materials such as routine press releases, fact sheets, news stories, bibliographies, and correspondence.
- Access and analyze existing sediment quality data; assist in collection of endemic fish (Fundulus heteroclitus), and

	develop risk-based PCB and PAH tissue concentration limits for fish consumption to inform a fish advisory.
Health Insurers  Examples:  Harvard Pilgrim Healthcare Blue Cross Blue Shield	<ul> <li>Analyze member data to find similarities and differences between program populations; present data in user friendly format to show members' behaviors, demographics and ways to better serve them</li> </ul>
Global Health Oriented  Examples:	<ul> <li>Explore epidemiological research on Chronic Kidney Disease, adolescent sexual education, and water and sanitation in rural Quezalguaque, Nicaragua; visit Quezalguaque schools and suggest that Brookline Sister City chemically test water from wells, rivers, and other water sources in the future</li> <li>Conduct desk review of current sanitation and hygiene project in Karnataka and Odisha; research options for improving sanitation; and increase awareness about health impacts of poor sanitation</li> </ul>
Nonprofits and Associations  Examples:  Chelsea Collaborative, Inc New England Organ Bank Ecology Center (Environmental Social Justice) Mystic River Watershed Association	<ul> <li>Community outreach, for example, collaborating with local agencies to provide learning experiences to engage young people in community change while decreasing engagement in risky behaviors.</li> <li>Develop new parks, community gardens.</li> <li>Address critical issues through a model of education, demonstration, replication, and legislation. Work with farmer's markets and statewide food access and equity programs.</li> <li>Work on and correct water quality problems that significantly affect environmental and/or public health. Negotiate with stakeholders in setting priorities and revising Water Quality Standards to address identified weaknesses.</li> </ul>
Research and Consulting  Examples:  Medpace (CRO) Silent Spring Institute Gradient	<ul> <li>Prepare and recommend scientifically valid and appropriate quality assurance program for data collection activities.</li> <li>Write clinical study reports, protocols, clinical development plans and FDA briefing documents.         Coordinate quality assurance reviews of documents and maintain audit trails of changes. Provide input on data analysis planning and interpretation.     </li> <li>Provide data management expertise and support to the clinical teams using data management best practices.         Provides analytic insight on data management strategies     </li> </ul>

and advise on tactical strategies accordingly.

- Analyze high-throughput toxicity testing and gene expression experiments for insights about the mechanisms of chemical carcinogenesis.
- Map the "exposome" and "metabolome" by developing computational methods for new, more comprehensive analyses of chemicals in human tissues.
- Mine text to uncover trends in published research on suspected carcinogens.
- Work with collaborating analytical laboratories to develop and apply novel exposure assessment tools, including novel sampling technologies and human biomonitoring methods related to the unique exposures of workers in high-risk occupations.

#### Sample Practicums: Epidemiology & Design and Conduct of PH Research Related

#### **Academic Medical Centers** Qualitative and quantitative research such as literature reviews, participant surveys, patient records/chart Examples: reviews and database management. **Boston Medical Center** Clinical trial data analysis using SAS to analyze adverse Boston Children's Hospital effects, safety outcomes; may contribute to Dana-Farber Cancer manuscripts. Institute Mass General Hospital Study design coordination; assist with study protocols and study design; work with IRBs; recruit participants; create participant communications; general project management. **Government Agencies** Develop surveys and assess household data. Develop fact sheets for agency website and educational Examples: information. **Brookline Health Dept** MA Dept of Public Health Review medical records, and identify clinical and Veteran's Administration diagnostic patterns in patient care. (MAVERIC) Create chart abstraction tool; extract and organize information into a database. Coordinate dataset from GPS and convert into a usable GIS dataset. Compare values between two towns; investigate selection bias. **Health Insurers** Analyze cost trends and projections using Visual Basic and SAS/SQL macros to pull data from a database and Examples: generate Excel reports based on ICD-9 codes for high Blue Cross Blue Shield cost claimants/conditions (HCCs). Tufts Health Plan Develop Excel tool to aid in calculating "blended" trends, Harvard Pilgrim combining cost trends based on facility type, physician Healthcare fee-for-service, ancillary/pharmacy, and capitated/global payments, leaving functionality to expand to future quarters. Analyze member data to find similarities and differences between program populations; present data in user friendly format to show members' behaviors, demographics and ways to better serve them.

Research and Consulting Firms  Examples:	<ul> <li>Pharma market access; analyze burden of disease, help to determine value of treatment (i.e. why should doctor prescribe this drug over another?).</li> <li>Conduct data analysis to identify trends in patient and claims data that lead to strategic decision making.</li> <li>Perform qualitative research with stakeholders such as physicians and payers.</li> <li>Conduct comprehensive systematic literature review to identify risk and protective factors; synthesize data into a working matrix for extracting relevant information.</li> </ul>
Pharma, Medical Devices  Examples:  Novartis Alkermes Biogen Takeda/Millennium	<ul> <li>Perform data analysis to identify trends in patient and claims data that lead to strategic decision making.</li> <li>Conduct market research to develop questionnaire, complete qualitative interviews and literature reviews.</li> <li>Compile database of individual case safety reports, and execute user acceptance test scripts for Global Safety Database.</li> <li>Document training records, requests for clinical follow-up information, and case files.</li> <li>Submit periodic safety reports to regulatory agencies.</li> <li>Conduct safety surveillance, signaling and Ad-Hoc analysis to identify new risks of company products and update safety labels accordingly.</li> </ul>
Global Health Oriented  Examples:  • WHO  • JSI  • MSH  • NGO's	<ul> <li>Assess pharmaceutical use patterns, investigate issues.</li> <li>Conduct data analysis including analyzing country profiles.</li> <li>Collect, clean, code and analyze data.</li> <li>Support Monitoring &amp; Evaluation (M&amp;) plans to provide impact evaluation.</li> </ul>

# Sample Practicums: Global Health Related

# **Across Multiple Functional and Context Areas\***

Hospitals, Community Health Centers, and other health providers (Global and Domestic U.S.) Examples:  • Mass General Hospital Center for Global Health • Lynn Community Health Center • Health Map at Children's Hospital • Amos Health and Hope (Nicaragua health provider)	<ul> <li>Health Systems Strengthening – developing plans to provide better access and quality care to families, often in underserved areas.</li> <li>Capacity Building – planning and implementing community health worker (CHW) programs including community engagement, communication and education/training.</li> <li>Health Education/Communication – developing communication tools and curriculum for preventative and treatment of disease, requiring cross-cultural sensitivity.</li> <li>Data Analysis – gathering, cleaning and verifying reports and outcome data for global infectious disease cases.</li> <li>Biostatistics – using global health data to conduct reproductive number, mortality risk factor and univariate survival analysis.</li> </ul>
	<ul> <li>Quality Improvement and Operations – creating more efficient systems &amp; processes that improve health outcomes, patient safety, and satisfaction; similar roles in U.S. providers working with immigrant and refugee populations.</li> </ul>
Consulting and International Development Firms  Examples:	<ul> <li>Program Management – backstopping/point person to support in-country colleagues, contract management, work plan development, financial/grants management, budgeting.</li> </ul>
	<ul> <li>Monitoring &amp; Evaluation – qualitative research with stakeholders (e.g., physicians, ministries of health) and quantitative research; developing and implementing M&amp;E plans (models, indicators, project planning).</li> </ul>
	<ul> <li>Business Development – proposal development, writing, researching funding streams, working with subject matter experts.</li> </ul>
	<ul> <li>Research &amp; Data Management/Analysis – collecting, cleaning, coding and analyzing data; supporting M&amp;E plans to provide impact evaluation; knowledge management to capture best practice and maximize impact.</li> </ul>
Pharma, Medical Devices  Examples:	Regulatory Affairs – dossier support, regulatory submission support, technical writing, researching
<ul><li>Novartis</li><li>Gilead</li><li>Biogen</li></ul>	<ul> <li>regulatory bodies.</li> <li>Procurement – supply chain, drug inventory management.</li> </ul>

	<ul> <li>Pharma Market Access – analyzing burden of disease, analyzing reimbursement landscape, helping to determine value of treatment (i.e. why should doctor prescribe this drug over another?).</li> </ul>
Government Agencies  Examples:  USAID  CDC  WHO  Ministries of Health  Peace Corps  Government Funded Fellowship (ex. Global Health Fellows and CDC Allan Rosenfield Fellowship programs)	<ul> <li>Data Analysis – analyze population health data to identify disparities or access issues based on policy decisions.</li> <li>Research – literature reviews to assess policies in other countries; contribute to policy development.</li> <li>Government Relations – attend ministry of health meetings and provide summaries for leaders to understand issues.</li> <li>Stakeholder Engagement – interact with varying constituents and stakeholders to understand how issues affect them differently.</li> <li>Finance/Business Development – analyze costs of care, develop financial models, identify and assess private/public partnerships.</li> </ul>
	<ul> <li>Epidemiological research – surveillance epidemiology, support M&amp;E Plans, and collect population profile data such as household surveys.</li> </ul>
Associations, NGO's and other nonprofits  Examples:	<ul> <li>Data Analysis – analyze population health data to identify disparities or access issues based on policy decisions.</li> <li>Literature reviews to assess policies in other countries.</li> <li>Attend ministry of health and ministry of education meetings, research backgrounds of policy decision makers, and provide summaries for advocacy purposes.</li> <li>Develop strategies to mobilize groups to support advocacy efforts (e.g., social media, partnerships).</li> <li>Communications/Fundraising – write donor reports and presentations, and work on story development (audio, social media).</li> <li>Business Development, Program Management and M&amp;E projects.</li> </ul>

#### Sample Practicums: Health Policy, Advocacy & Law, Human Rights,

#### **Health Equity and Social Justice Related**

#### Hospitals Community Health Centers Other health providers

#### Examples:

- Partners Healthcare
- Boston Children's Hospital
- Mass General Hospital
- Patient Advocacy: Identify common ethical challenges; conduct extensive literature research on issues related to specific ethics consult cases; attend monthly Ethics Committee meetings and ad-hoc team consults; generate and disseminate improved ethics resources for the community; and track and evaluate ethical consults.
- Government Relations: Support Government Relations through Advocacy & Policy, for example, in areas such as pediatric mental health care. Conduct robust literature review on pediatric psychiatric boarding; develop survey to be used by hospitals across the state to measure the factors impacting pediatric psychiatric boarding; and work on legislative advocacy projects regarding pediatric mental health.
- Quality & Safety: Contribute to Quality and Safety
  working with staff to understand regulatory compliance
  issues, implement safety programs such as compliance
  tools, and create high quality and safe care environment
  for patients and staff. For example, evaluate current
  compliance and develop PowerPoint presentations to
  educate staff on the importance of using a specific
  tool. Then, re-survey staff to establish whether or not
  the education had affected their implementation of the
  tool.

#### **Pharma, Medical Devices**

- Shire
- EMD Serono

- Government Affairs: Conduct literature reviews, attend meetings with federal stakeholders, and assist in the development of advocacy plans and company policy positions with a focus on specific therapeutic areas.
- Regulatory: Contribute to and write white papers and country profiles used for developing briefing books. Country profiles provide an in-depth perspective on comparative analysis of various company activities, and healthcare systems and policies around the globe. Develop understanding of each individual country's key challenges, regulatory environment, key demographics, and appropriate policy recommendations for improving overall public health.

#### **Government Agencies**

#### Examples:

- MA DPH
- Boston Public Health Commission
- Joint Committee on Healthcare Financing
- Group Insurance Commission (quasi state agency)
- Policy Analysis: For example, examine the use of a managed behavioral health organization (MBHOs) to provide behavioral health benefits and its impact on care integration. Conduct an extensive literature review and interview stakeholders including legislators, state government officials (regulators/analysts, executive agencies, core service agencies), academics and policy experts, providers / health systems, insurance executives, and advocacy organizations to inform conclusions and policy recommendations. Write white paper discussing the current policy debate, the ways in which integration can be achieved, and policy recommendations.
- Government Affairs: Analyze current and proposed health policies based on cost, access, quality, and equity; attend legislative debate and hearings at the State House regarding relevant legislation and topic areas; track bills pending before the Legislature and develop succinct and focused bill comments and position statements; facilitate policy discussions amongst programs, bureaus and senior staff; and develop deliverables such as Excel database to track legislative reports, policy brief, and legislative reports.

# Academia, Associations, NGO's and other nonprofits

- Health Law Advocates
- Palladium (global health)
- Harvard School of Public Health -- FXB Center for Health and Human Rights
- Policy & Advocacy: Learn bills and policies involving health system and impact on particular issue or vulnerable population; analyze population health data to identify disparities or access issues based on policy decisions.
- Research: Conduct review of scientific and grey literature; interview stakeholders; research and write brief or case study on particular issue and policy approaches.

# Sample Practicums: Healthcare Management and Health Policy Related

Hospitals Community Health Centers Other health providers  Examples:  Partners Healthcare Boston Children's Hospital Mass General Hospital Lynn Community Health Center Fenway Health	<ul> <li>Quality Improvement, Performance Improvement and Operations – such as creating more efficient systems &amp; processes to improve health outcomes, patient safety, and satisfaction.</li> <li>Project Management such as Electronic Medical Record systems integration and patient-centered medical home implementation, etc.</li> <li>Revenue Cycle Management – such as improving claims processes to expedite payments.</li> <li>Data Analysis – such as identifying trends in patient and claims data that lead to strategic decision making.</li> <li>Business Analysis – such as researching new revenue streams, and performing competitive and market research, etc.</li> <li>Policy Analysis – such as translating regulations to decision makers including finance teams.</li> </ul>
Health Insurance Firms	Performance Improvement – see above.
<ul> <li>Examples:</li> <li>Blue Cross Blue Shield</li> <li>Tufts Health Plan</li> <li>Harvard Pilgrim</li> </ul>	<ul> <li>Project Management – see above.</li> <li>Data Analysis – see above.</li> <li>Business Analysis – see above. May also include product development targeting specific populations.</li> </ul>
Research and Consulting Firms  Examples:  Quintiles	Pharma Market Access – such as analyzing burden of disease and reimbursement landscape, and helping to determine value of treatment (i.e. why should doctor prescribe this drug over another?).
<ul><li>GfK Consulting</li><li>Boston Healthcare</li><li>Associates</li></ul>	<ul> <li>Data Analysis – such as identifying trends in patient and claims data that lead to strategic decision making.</li> </ul>
	<ul> <li>Business Analysis – such as researching new products and markets through competitive and market research, etc.</li> </ul>
	<ul> <li>Qualitative research – such as interviewing stakeholders including physicians and payers; and, research through literature reviews.</li> </ul>
	<ul> <li>Value-based pricing support – health economics outcomes research projects as well as examples described above that can showcase better patient outcomes and cost-effectiveness.</li> </ul>
Pharma, Medical Devices  Examples:  Novartis Alkermes	Data Analysis – such as identifying trends in patient and claims data that lead to strategic decision making.

<ul><li>Biogen</li><li>Takeda</li><li>Repligen</li></ul>	<ul> <li>Project Management – such as working on work streams that involve regulatory processes, management of data, etc.</li> <li>Competitive and market research – see above.</li> </ul>
	<ul> <li>Value-based pricing support – see above.</li> </ul>
Government Agencies  Examples:	<ul> <li>Learn bills and policies involving health system and access to affordable health care (i.e. ACA).</li> </ul>
<ul> <li>Joint Committee on Public         Health</li> <li>Health Policy Commission</li> </ul>	<ul> <li>Data Analysis such as analyzing population health data to identify disparities or access issues based on policy decisions.</li> </ul>
<ul> <li>Joint Committee on Healthcare Financing</li> </ul>	Literature reviews to assess policies in other states.
<b>3</b>	<ul> <li>Attend state house meetings and provide summaries for legislators to understand issues.</li> </ul>
	<ul> <li>Interact with varying constituents and stakeholders to understand how issues affect them differently.</li> </ul>
	Analyze costs of care and develop financial models.
Associations, NGO's and other nonprofits	<ul> <li>Learn bills and policies involving health system and impact on particular issue (i.e. ACA)</li> </ul>
Examples:  • Alzheimer's Association	<ul> <li>Data Analysis (analyze population health data to identify disparities or access issues based on policy decisions)</li> </ul>
<ul><li>American Red Cross</li><li>American Heart Assoc.</li></ul>	Literature reviews to assess policies in other states
	<ul> <li>Attend state house meetings, research backgrounds of policy decision makers, and provide summaries for advocacy purposes</li> </ul>
	Develop strategies to mobilize groups to support advocacy efforts through social media, partnerships, etc.

#### Sample Practicums: Maternal and Child Health and Sex, Sexuality & Gender Related

#### **Across Multiple Functional and Context Areas\***

#### **Academic Medical Centers**

#### Examples:

- Boston Medical Center Breastfeeding Center
- Boston Children's Hospital
- Dana-Farber Cancer Institute
- Advance the initiative of designating hospitals in 6 states to become BabyFriendly<sup>TM</sup> by compiling and analyzing survey data from convenience surveys of prenatal patients, postpartum patients, nurses, physicians and other provider staff.
- Implement project to increase the amount of time that parents spend at the bedside while their infants are hospitalized for health issue by educating families on the role of non-pharmacological care with the ultimate goal of reducing infant length of stay.
- Contribute to the work of quantifying improvements in the quality of life of pediatric Cerebral Palsy patients and their caregivers, through a detailed literature review highlighting various Quality of Life instruments and the results.

#### **Government Agencies**

#### Examples:

- Boston Public Health Commission
- MA Dept of Public Health
- Veteran's Administration
- Develop fact sheets for agency website and educational information on maternal and child health topics.
- Prepare and facilitate workshops for constituents on topics, including gender roles, healthy relationships and intimate partner violence among teens.
- Organize the development of a statewide initiative on MCH topic by distributing surveys, analyzing data and presenting results at working group.
- Create a new consumer resource, such as the Disability Healthy Sexuality Resource Guide published on the MA DPH website, as a tool for parents, educators and those that work with anyone who has a disability.

#### **Research Firms**

- Ibis Reproductive Health
- Fenway Health
- International Center for Research on Women (ICRW)
- Contribute to growing body of research assessing the reproductive health needs of servicewomen through data collection and qualitative data analysis with the focus of increasing access to safe abortion care.
- Develop database and online map application detailing culturally competent LGBTQ youth mental health services throughout Massachusetts to increase youth access to services and inform relevant policy recommendations regarding LGBTQ youth health needs.
- Develop strategies to decrease HIV/AIDS among female sex workers (FSW) in Guyana by seeking ways to decrease rates of gender-based violence (GBV). Conduct literature review on best practices of gender-based violence programs and research GBV screening tools.
   Adapt into a GBV screening tool specific to the needs of

	the Guyanese context and get feedback from in country team.
Community Organizations  Examples:  • Mass Alliance on Teen Pregnancy  • Planned Parenthood League of Massachusetts  • Boston Area Rape Crisis Center	<ul> <li>Collect and draft testimony presented at state house hearings on reproductive justice.</li> <li>Develop curriculum for youth serving organization trainings and for a new Youth Advisory Board.</li> <li>Facilitate sexual violence prevention workshops for young people in Boston.</li> <li>Develop a sexual education toolkit for health care providers that showcases best practices within the clinical setting to facilitate effective adolescent sexual health care</li> </ul>
Policy and Advocacy Employers  Examples:  NARAL Pro-Choice MA  Community Catalyst  Charles Group Consulting	<ul> <li>Conduct research, write proposals and deliverables, and plan events for clients and legislators.</li> <li>Manage complex data to more efficiently provide support for lobbying efforts by improving communication with the State House.</li> <li>Author issue briefs and blog post on MCH topics such as maternal depression, its impact on children and families, and policy approaches.</li> </ul>

# Sample Practicums: Pharmaceutical Related

# **Across Multiple Functional and Context Areas\***

Academic Medical Centers  Examples:  Boston Medical Center  Boston Children's Hospital  Dana-Farber Cancer Institute  Mass General Hospital	<ul> <li>Conduct clinical trial data analysis using SAS to analyze adverse effects and safety outcomes; may contribute to manuscripts.</li> <li>Research administration in support of clinical trials including grants administration, process improvement, and financial and business analysis.</li> </ul>
Health Insurance Firms  Examples:  Blue Cross Blue Shield  Tufts Health Plan  Harvard Pilgrim Healthcare	<ul> <li>Design and maintain databases of formularies and pharmacy programs for program evaluations, competitor comparisons, and responses to request for proposals (RFPs).</li> <li>Summarize data and prepare reports of drug coverage by drug category and pharmacy program.</li> <li>Design and maintain databases of pharmacist consultations, and prepare quarterly summary reports.</li> <li>Support analysis &amp; reporting and clinical pharmacy teams in analysis of large data files.</li> </ul>
Research and Consulting Firms  Examples:	<ul> <li>Research pharma market access to analyze burden of disease; analyze reimbursement landscape; help determine value of treatment (i.e. why should doctor prescribe this drug over another?).</li> <li>Conduct data analysis to identify trends in patient and claims data that lead to strategic decision making.</li> <li>Perform qualitative research with stakeholders such as physicians and payers; conduct literature reviews.</li> <li>Provide value-based pricing support (i.e., can we show better outcomes, cost-effectiveness?).</li> </ul>
Pharma, Medical Devices  Examples:  Novartis Alkermes Biogen Takeda Repligen	<ul> <li>Conduct data analysis to identify trends in patient and claims data that lead to strategic decision making</li> <li>Project Management; evaluate work streams to improve processes, manage data, etc.</li> <li>Regulatory affairs including dossier support, regulatory submission support, technical writing, and researching regulatory bodies.</li> <li>Conduct competitive and market research to develop questionnaire; conduct qualitative interviews and literature reviews</li> <li>Assist with value-based pricing/dossier support (i.e. can we show better outcomes, cost-effectiveness?).</li> </ul>

	<ul> <li>Government affairs and advocacy including support of lobbying efforts; collaborate with association partners on programming.</li> </ul>
Global Health Oriented	Assess pharmaceutical use patterns and investigate issues.
• WHO	<ul> <li>Conduct data analysis including country profiles.</li> </ul>
<ul><li>JSI</li><li>MSH</li><li>NGO's</li></ul>	<ul> <li>Evaluate process improvements including IT systems, records management, and work flow improvements.</li> </ul>
- 11003	<ul> <li>Assist with procurement, as well as supply chain and drug inventory management.</li> </ul>

# Sample Practicums: Social and Behavioral Sciences Oriented

# **Across Multiple Functional and Context Areas\***

Academic Medical Centers  Examples:  Boston Medical Center Boston Children's Hospital Dana-Farber Cancer Institute Mass General Hospital	<ul> <li>Qualitative and quantitative research such as literature reviews, participant surveys, patient records/chart reviews and database management.</li> <li>Work with leaders to develop a survey to be used by hospitals across the state to measure the factors, for example, impacting pediatric psychiatric boarding.</li> <li>Plan, test, and measure wait time communication strategies by observing clinic flow and reporting observations back to project team.</li> </ul>
<ul> <li>Government Agencies</li> <li>Examples:         <ul> <li>Boston Public Health</li> <li>Commission</li> <li>MA Dept of Public Health</li> <li>Veteran's Administration</li> </ul> </li> </ul>	<ul> <li>Develop fact sheets for agency website and educational information.</li> <li>Design and implement new components of existing programs such as a peer leadership program.</li> <li>Prepare and facilitate workshops for constituents on topics including media literacy, gender roles, healthy relationships and intimate partner violence among teens.</li> <li>Assist in organizing statewide summits by researching key speakers in the field and developing communication materials.</li> </ul>
Examples:      Blue Cross Blue Shield     Tufts Health Plan     Kaiser Permanente	<ul> <li>Analyze member data to find similarities and differences between program populations</li> <li>Present data in user friendly format to show members' behaviors, demographics and ways to better serve them</li> <li>Design new frameworks for marketing collateral, drawing from social and behavioral science theory and marketing principles.</li> <li>Enhance health communications by writing creative brief detailing concepts for the collateral. Pitch the new piece, and work with the Design Team to produce the piece.</li> </ul>
Research and Consulting Firms  Examples:	<ul> <li>Develop strategic communications plan, internal topic talking points/Q&amp;As for spokesperson use with the media, and develop public materials for use on the topic website.</li> <li>Conduct independent media and stakeholder analyses.</li> <li>Conduct literature review for identifying the risk and protective factors of health topics, for example the habit of substance abuse among military personnel.</li> </ul>

	<ul> <li>Assist in technical assistance efforts that provide community grantees with information related to prevention and to plan meetings/conferences for their benefit.</li> </ul>
College Campuses, School Depts  Examples:  • Tufts University Dept of Health Promotion and Prevention  • Harvard University Health Services Department of Health Promotion  • Boston Public Schools	<ul> <li>Analyze national survey results to report on a variety of health topics relevant to undergraduate students with attention to social and demographic characteristics like participation in Greek life, race and ethnicity, and sexual orientation, among others.</li> </ul>
	<ul> <li>Conduct needs assessment using survey results, interviews, focus groups with key stakeholders and student groups on campus, and a comprehensive literature review.</li> </ul>
	<ul> <li>Develop flyer and other collateral on health topic for advocacy efforts with parents and community stakeholders.</li> </ul>
Health Communications Employers  Examples:  • Health Resources in Action  • Boston Medical Center — Digital Media Center • Cone Communications	<ul> <li>Draft research plan and interview guide to gather and assess attitudes of health care professionals concerning health issue, and conduct phone interviews with key informants.</li> </ul>
	<ul> <li>Perform a materials assessment used to highlight gaps in health communications materials in the state.</li> </ul>
	<ul> <li>Conduct pre-/post-production work on a patient experience film.</li> </ul>
	<ul> <li>Implement visual documentation strategy for an internal emergency preparedness training program.</li> </ul>
	<ul> <li>Analyze market and research data for trends in consumer health behaviors and perceptions to inform campaign strategy for federal, state, and regional government clients and new business proposals.</li> </ul>
	<ul> <li>Strategize social impact and Corporate Social Responsibility (CSR) initiatives for corporate and nonprofit clients focusing on business return, consumer engagement, and impact monitoring.</li> </ul>

<sup>\*</sup>Note: Samples vary based on the functional and/or context certificates you choose. For example, if you are interested in prenatal care research, you may want to review both Epidemiology (functional) and Maternal & Child Health (context) samples.