

Degree: MPH-45

Field of Study: Health and Social Behavior

Practicum Project Abstracts 2023

Project Title	Project Summary or Abstract
Heath Justice Behind and Beyond the Bars	Working with MJA on two missions: 1.Establishing a database on the existing closed and submitted MJA cases to evaluate the effectiveness of MJA and to address any unmet needs 2. Devising a toolkit for the health professionals and legal workers to fully understand the standard of care each incarcerated individuals are entitled to with each certain medical conditions under National Guidelines
Reducing Geographic Gaps in Access to LGBTQIA+ Training Resources: A Novel E-learning Platform	Background: LGBTQIA+ people continue to face significant health disparities in the United States. Gaps in, or lack of, sexual and gender minority (SGM) health education and training for healthcare professionals contribute to these disparities. LGBTQIA+ education and training is especially limited in certain geographic locations due to variable local expertise and sociopolitical environments. Since 2011, the Health Resources and Services Administration’s Bureau of Primary Health Care has funded the National LGBTQIA+ Health Education Center, a virtual educational platform delivering multi-media continuing education programs and publications; the goal is to provide comprehensive, evidence-informed, training and technical assistance to help providers care for LGBTQIA+ people. Methods: Data was collected via Google Analytics beginning on January 1, 2020, allowing for the elucidation of use across the website including referral sites and geographic location of users. Results: The utilization data collected from the Education Center platform reveal a sustained, high-volume utilization of its education, training programs, and resources, with a large number of registered users. The location data showed that the platform has engaged learners from across the United States. Discussion: The broad reach of the platform shows the potential for e-learning platforms to reduce geographic gaps in access to LGBTQIA+ training resources. Overall, continued geographic gaps in SGM health education and training for healthcare professionals demonstrates the compelling need for more online education, training, and technical assistance especially given recent sociopolitical attacks which may worsen these geographic gaps in access.

<p>Menstrual Cycle Symptoms: Transfeminine Individuals on Estrogen Therapy</p>	<p>This practicum project was focused on highlighting the experience of menstrual cycle symptoms in transfeminine individuals on hormone therapy. To date, there has been no research highlighting this experience either qualitatively or quantitatively. This has facilitated a lack of awareness in both the scientific and medical communities, invalidating the experience of AMAB TGD individuals and further exacerbating unmet healthcare needs. To address this gap in the literature, I received IRB approval and created a mixed-methods survey to capture this symptomatic experience. The final goal is journal publication following the completion of data collection and analysis.</p>
<p>Communication Strategy for a Mental Health Training Initiative (EMPOWER)</p>	<p>The practicum project aims to create a comprehensive communication strategy for the EMPOWER initiative, which is a mental health project under the Mental Health For All Lab at Harvard Medical School. The strategy will focus on conveying EMPOWER's vision of building health system capacity for preventing and caring for mental health problems to multiple target audiences with tailored narratives. The objectives of the strategy include increasing EMPOWER's visibility and awareness, opening new communication channels with different target groups, educating future generations about the importance of building a mental health workforce and creating assets to attract funders for new projects. The communication strategy is critical to the success of the initiative and will help achieve its mission by creating a compelling brand narrative, setting communication priorities, identifying target audiences, and measuring the effectiveness of communication efforts.</p>
<p>Antidepressant Discontinuation Patterns Within and Across Different Age Groups</p>	<p>ABSTRACT</p> <p>Objective: To assess the overall and age-specific time to antidepressant discontinuation among treatment-naïve patients in the US and explore patient-specific characteristics potentially associated with discontinuation.</p> <p>Methods: In this retrospective cohort study, we identified commercially-insured beneficiaries 16-84 years of age who initiated an antidepressant within the nationwide Optum Clinformatics DataMart (CDM) database. The primary outcome was antidepressant discontinuation within the enrollment period. We then estimated the association between patient characteristics and time to discontinuation using adjusted Cox proportional hazard regression.</p> <p>Results: Across 1,365,497 eligible patients, we observed an increasing mean time to discontinuation from 152.6 days (SD 195.25) for the 25–34 age group to 188.35 days (SD 255.88) for the 75–84 years age group. Patients who were younger, male, of non-White race, diagnosed with substance use</p>

	<p>disorder (SUD), and taking tricyclic antidepressants were more likely to discontinue antidepressants. Conclusions: Our findings, particularly concerning younger, Asian and SUD patients, fill the existing gap in the literature on the discontinuation of antidepressants. These data provide valuable guidance for clinicians in designing patient-centered treatment regimens and encourage researchers to further expand the epidemiologic understanding of antidepressant use.</p>
<p>Improving Communication Barriers among Patients with Limited English Proficiency and Neurological Illness</p>	<p>Introduction: Neurological disorders are the second leading cause of death globally. Patients who have limited English proficiency (LEP), face significant barriers to health care, including access to neurology specialty care and receiving subpar quality of care. With neurologic illness, they face unique challenges like changes in cognition, speech, or ways to communicate that compound existing language barriers. In this qualitative study, we explore the perspectives of medical interpreters, clinicians, and patients/caregivers to understand the unique experiences of patients who have LOE/LEP.</p> <p>Methods: We conducted 20 interviews from 04/2022 to 02/2023 with interpreters (n=8), clinicians (n=6), and English and Spanish-speaking patients/caregivers (n=6), recruited from MGH and MGH Chelsea HealthCare Center. We analyzed the data to identify common themes.</p> <p>Results: We identified themes at the individual level, relating to communication among patients, family, medical interpreters and clinicians involved in an encounter, and hospital system level. At the individual level, patients' culture, education, and socioeconomic status and factors related to their neurological illness (e.g., low-volume speech or memory loss) influenced how clinicians adjusted the neurological exam to meet their needs. Interpreters' prior experience working with patients with LOE/LEP status and neurological illness, and their sense of belonging in the healthcare team also influenced the experience. Communication-level themes included differences across telemedicine platform modality and verbal and non-verbal communication strategies used to mitigate challenges. Finally, hospital system-level themes included challenges with time allotted for clinical encounters.</p> <p>Discussion/Conclusion: By triangulating the perspectives of interpreters, clinicians, and patients/caregivers, we can better care for this patient population</p>
<p>Frontline Negotiations in Indigenous Health and Anti-Racism: Bridging</p>	<p>The theory, research, and practice of negotiation are not currently a formal part of medical training and education in Canada. People with direct and extensive negotiation experience within healthcare and public health institutions often work in isolation from each other and enjoy only limited access to</p>

<p>negotiation work from the global humanitarian field of practice to Indigenous health and wellbeing, anti-racism, and decolonizing practices in the public health and healthcare fields</p>	<p>information and discussions on peer practices involving various regions and contexts. This project draws on the experience of humanitarian negotiators from the Centre of Competence on Humanitarian Negotiation (CCHN) to support professional exchanges among practitioners and enable the sharing of tactical advice for engaging in successful negotiation in complex environments. The objectives are (1) to identify a potential gap in learning and capacity building around negotiation practices within the healthcare and public health sector in Canada and explore opportunities to fill this gap, and (2) to explore the themes of trust, legitimacy, and influence with respect to Indigenous health and wellbeing, anti-racism, and decolonizing work in Canada. Frontline negotiators (clinicians and public health leaders) in the context of Indigenous health and wellbeing, anti-racism, and decolonizing work have varied experiences in reflecting, debriefing, and making sense of their expertise in trust, legitimacy, and influence-building with their counterparts. However, they are successful despite the challenges likely due to a set of practices and skills acquired over time through mentoring or experiential learning. A community of practice of similar/same context of work is helpful in providing support through a nonjudgmental space for learning and growth.</p>
<p>Embedding Restorative Justice within the Department of Youth Services</p>	<p>Transformational Prison Project has partnered with the Massachusetts Department of Youth Services to embed restorative justice practices within DYS settings. This practicum was designed to examine the impact of TPP's restorative justice programming on DYS youth, families, and staff wellness through the development of program evaluation tools and instruments.</p>
<p>Sharing Results of a Community Health Needs Assessment and Defining Priority Alignment</p>	<p>This practicum included multiple components. The first was developing an infographic summary for dissemination of Dana Farber's complex 2022-2025 Community Health Needs Assessment. This was aimed for distribution to stakeholders as well as initial participants/communities which contributed to original data collection via reconvening focus groups. Another aspect involved reviewing state, local, and organization priorities and implementation strategies in order to assess where there were alignments and deviations lay and resulting intervention gaps/avenues for implementation.</p>
<p>Expanding the reach of comprehensive sex education across the United States</p>	<p>Background: Comprehensive sex education has many proven health benefits, but many teens in states with the greatest barriers to reproductive healthcare do not have access to it. Purpose: The aim of this project was to analyze state policies relating to sex education and abortion to identify target states for expanding the reach of the Get Real comprehensive sex education program into regions with restrictions on reproductive healthcare.</p>

	<p>Methods: We reviewed on-line resources to identify policies relating to sex education and abortion that vary between states and applied this information to select target states with restrictive abortion policies yet moderate sex education policies.</p> <p>Results: We identified 8 key target states: Wisconsin, Georgia, Pennsylvania, West Virginia, Kansas, Indiana, Tennessee, and Missouri.</p> <p>Conclusion: Our findings suggest that there are opportunities to expand comprehensive sex education into regions of the US with barriers to reproductive healthcare access.</p>
<p>Outcomes of elective genetic sequencing in research, clinical and commercial contexts</p>	<p>Genetic sequencing is widely used for rare-disease diagnosis and personalized cancer treatment, and now is increasingly used for screening purposes in ostensibly healthy individuals¹. Once the exclusive province of research studies, elective genetic sequencing (EGS), also described previously as predispositional personal genome sequencing (PPGS), is now available as an elective clinician-ordered test through numerous providers. Most participants self-identified as white (87.4%), and almost all had at least a college degree (91.5%). Almost all respondents reported “interest in finding about my personal disease risk” (91.4%) and “curiosity about my genetic makeup” (90.7%) as a very or somewhat important motivation. A majority of participants (78.5%) reported discussing their results with someone. As early adopters of EGS testing, this study provides valuable data on the outcomes of these technologies as they are actually being used now and into the future.</p>
<p>A Qualitative Assessment of Guinea-Bissau’s Health System Resilience</p>	<p>I worked with a team that assesses health system resilience in low- and middle income countries. My practicum was focused on qualitatively assessing Guinea-Bissau’s pandemic preparedness and health system resilience through literature review, analyzing results from international health security reports, and conducting key informant interviews. I had the opportunity to present findings from the qualitative assessment to officials in Guinea-Bissau’s Ministry of Health. I also wrote a case study on lessons learned from Guinea-Bissau’s response to COVID-19 and other public health crises which was included for publication in a flagship World Bank report on health system resilience.</p>
<p>Gender-sensitive COVID-19 resilience program</p>	<p>Evaluating priority areas of resilience in the face of the COVID-19 pandemic in an informal settlement in Lagos, Nigeria, and evaluating how current measures of resilience and food security can be utilized in this particular context.</p>
<p>Epidemiology of Children with Burns in Mexico</p>	<p>This project aims to describe the epidemiology and etiology of pediatric burn injuries in Mexico and identify risk factors associated with mortality, risk of infection, and days of in-hospital stay after a</p>

	<p>burn injury. A retrospective cohort analysis was conducted using a dataset provided by the Mexican Ministry of Health, including pediatric burn patients hospitalized in the Mexican public healthcare sector in 2016, 2018, and 2020. Descriptive statistics and regression models were used to analyze the associations between burn injuries, poverty levels, and income inequality, adjusting for potential confounding factors such as age and sex.</p> <p>The analysis revealed that 11,652 pediatric patients were treated for burn injuries in the selected years, with a majority concentrated in younger age groups. Indigenous identity was significantly associated with higher rates of subsequent hospitalizations. Males represented 59.96% of the patients, and scald injuries were the most common cause of burn injuries in both males and females. The overall infection rate was 1.48%, with electric injury having the highest infection rate at 1.88%. The distribution of deaths varied by burn etiology. The State of Mexico reported the highest number of cases.</p> <p>The findings suggest that burn injuries are an epidemic in Mexico, particularly affecting younger children. Scald injuries pose a significant threat, and potential child abuse and neglect may be contributing factors. Mexico currently lacks an official burn repository and sufficient data on trauma injuries, highlighting the need for improved data collection and reporting mechanisms to better understand and address this public health issue.</p>
<p>Very Preterm Birth and Health-Related Quality of Life of Infants and Parents</p>	<p>Very preterm birth (< 32 weeks of gestation) and the prolonged neonatal intensive care unit (NICU) hospitalization represent stressful life events that continue to impact infants and their parents after discharge. Health-related quality of life (HRQOL) is a multi-dimensional construct encompassing physical, emotional, and social functioning, perceived health, and well-being. Little is known about HRQOL of infants born very preterm after NICU discharge or about the extent to which maternal and infant characteristics influence HRQOL. We conducted an observational longitudinal study to 1) describe HRQOL in a cohort of very preterm infants at 4 months and 12 months of corrected age, and 2) identify maternal and infant determinants of HRQOL. We used data from 38 participants in the Nourish Study, an ongoing single-center NICU diet intervention trial. At 4 and 12 months of corrected age, we administered the Infant Toddler Quality of Life (ITQOL), a parent-reported survey. We</p>

	<p>analyzed data using STATA and compared survey scores continuously, compared median scores at 4- and 12-month intervals, and examined the proportion of infants with scores < 25th percentile based on US norms. We found that very preterm birth negatively impacts infant HRQOL up to a year after NICU discharge. Mothers < 30 years of age may benefit from additional emotional support. Infant birth weight < 1000 grams, gestational age < 28 weeks, and bronchopulmonary dysplasia were all associated with lower HRQOL, suggesting that infant medical vulnerability in the NICU is a key determinant of HRQOL after discharge.</p>
<p>Chagas Disease: Bringing Awareness to Neglected Communities</p>	<p>Chagas Disease is a zoonotic infection caused by the protozoan parasite <i>Trypanosoma cruzi</i> endemic to Central America. In the United States, 300,000 people live with chronic Chagas disease. Out of this, 40,000 are people with uteruses of childbearing age. Chagas Disease disproportionately affects families of lower socioeconomic status. Therefore, screening must be available to all patients coming from endemic areas. Currently, two medicines are available for patients diagnosed with Chagas Disease benznidazole and nifurtimox. However, treatment during pregnancy is not available as teratogenic risks for benznidazole and nifurtimox are not well known. This practicum aimed to identify the barriers to accessibility to diagnosis and treatment for Chagas disease in patients presenting to East Boston Neighborhood Health Center and use this information to increase awareness and make diagnosis and treatment more accessible for communities at high risk. One of the practicum activities included interviewing a pharmacist in BMC; the interview is of historical significance as she was one of the first people in the nation to recognize the need for accessible treatment to patients living with Chagas disease in Boston, Massachusetts. She helped many patients in East Boston receive treatment for Chagas disease. The interview is essential as it will help hospitals and clinics become aware of the pharmacist's process to get benznidazole and nifurtimox medication sent to BMC and the nuances it takes to get these medicines to each patient.</p>
<p>Prioritizing Youth & Family-Professional Partnerships to Create a Health Transition Toolkit for Youth and Young</p>	<p>This practicum was aimed at improving transition services for Youth & Young Adults with Special Health Needs (YYASHN) and their caregivers in Massachusetts. The project focused on the development and implementation of a Health Transition Toolkit for the DPH Division for Children & Youth with Special Health Needs (DCYSHN), with the goal of ensuring the quality, accessibility, and usability of the toolkit. Key informants were consulted to assure that the toolkit was inclusive of diverse needs, and subject matter experts were engaged to fill content gaps. The project involved</p>

<p>Adults with Special Health Needs</p>	<p>completing research, editing, and collaborating with subject matter experts in preparation for a soft launch of the product. The project emphasized the importance of engaging YYASHN and their caregivers in the development of resources and services to ensure their needs are adequately addressed.</p>
<p>Genetics of Eating Disorders in Mexican Populations</p>	<p>In completing my practicum on the Genetics of Eating Disorders in Mexican Populations (GEMex) with the Broad Institute, my role was to support the launch of participant recruitment and data collection on site in Mexico. My responsibilities included developing participant recruitment materials (including informational posters and brochures) to be distributed to potential cases and controls, creating training materials (including checklists and flow-charts) that will be utilized by research staff in Mexico, adding data collection instruments into the study's REDCap project, identifying necessary quality controls (QC) and working with the data management team at the Broad Institute to implement these QC measures and test their efficacy on practice data entered strategically to trigger QC alerts. To support the transition of the project from launch to enrollment, I also helped design weekly reports to track participant recruitment and monitor the quality of the data that is collected, with the goal of recognizing and addressing QC problems as they arise. Finally, I supported the team's prior work on other psychiatric disorders (bipolar disorder and schizophrenia) and in other locations (Africa), which have concluded data collection and are now moving toward data analysis. My role on these projects included developing additional QC measures, data cleaning, and contributing background research on an analysis of discordance between clinician-assigned diagnoses and diagnostic tools among the previous cohort of participants. Working on this practicum provided significant insight to the challenges of conducting research in an international setting and the importance of expanding our understanding of genetics and mental health beyond predominantly white populations.</p>
<p>Combatting Racism in the Healthcare Response to Human Trafficking</p>	<p>The goal of this practicum project was to promote racial equity in the work of HEAL Trafficking, a network of human trafficking survivors and professionals whose work addresses human trafficking from a health perspective. The focus of the practicum was a scoping review of evidence at the intersection of racism/antiracism, human trafficking response, and healthcare. The findings of the review will be used to support racial equity in HEAL's anti-trafficking efforts, especially healthcare</p>

	provider education. We also plan to publish the scoping review findings since there has not yet been a published review of evidence in this area.
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