

## Practicum Abstracts 2024

Degree: MPH-45

Field of Study: Health and Social Behavior

Project Title	Project Summary or Abstract
Simulation Skills Training for Obstetric Emergencies for Midwives	My practicum project, “Simulation Skills Training for Obstetric Emergencies for Midwives” created a pilot simulation skills training program for midwives to practice and learn new techniques for managing obstetric emergencies in Jinja, Uganda. I partnered with Catherine Han, an MPH student in health and social behavior who is an obstetrician to create and execute out pilot simulation skills training program. Our skills together as a midwife and obstetrician enabled us to bring different perspectives to the project and create a project that was well-rounded and met the needs of the community we were working with. We originally were prepared to teach 5 emergencies: postpartum hemorrhage, shoulder dystocia, pre-eclampsia and eclampsia, twins, breech presentation. After arriving in Jinja we adjusted our training to also include neonatal resuscitation per the midwives’ request.
Humanistic Charting Tool: Empowering Patient’s Voices in the Emergency Room	As a result of a more overwhelmed and busy emergency room, a team within the University of California San Francisco’s Emergency Medicine Department created the Humanistic Charting Tool. This tool was to be used as patients were triaged and waiting for the provider. Here they would be able to document their concerns, their past experiences with providers, important information regarding their care, and cultural practices regarding their health care. Then, the ER provider would be able to see this condensed before entering the patient’s room, ultimately and ideally positively impacting the care by establishing some empathy and necessary information before the encounter.
Coaching Online and Community Health (COACH) Program: Enhancing Wellness for the Serious Mental Illness Population	The Coaching Online and Community Health (COACH) Program came into fruition through the collaborative work of the Mental Health for All Lab at Harvard Medical School and Fountain House in New York City. COACH is the outcome of a study that led them to engage with individuals with serious mental illness (SMI) who were Fountain House members. There was considerable interest to adopt a healthy lifestyle program to be made available and accessible online for members. This led to the current development stage involving the creation of online modules highlighting behavior

	<p>change interventions based on the Group Lifestyle Balance Program. It will eventually be translated into videos as well as embedded in peer support coaching in the clubhouse model in the long-term. The development process entailed literature reviews, knowledge translation activities, module development as well as frequent stakeholder engagement.</p>
<p>Partnering With One Love Foundation To Expand Youth Access to Healthy Relationship Education</p>	<p>During this practicum project, I worked with the One Love Foundation toward their goal of ending relationship violence. I engaged in the following projects centered on relationship abuse prevention through teaching youth healthy relationship skills and culture transformation within their spaces:</p> <ol style="list-style-type: none"> <li>1) Built capacity of school/ organization leaders in advocating for inclusion of One Love's Healthy Relationship curricula in their schools and summer programming through teaching narrative leadership skills.</li> <li>2) Conducted a literature review that will be used in updating One Love's workshops to teach about consent in relationships not as a verbal contract that one gives and receives, but rather as a shared, nuanced experience.</li> <li>3) Built relationships with community organizations to facilitate bringing healthy relationship education to the youth in the Greater Boston Area served by the organization.</li> </ol>
<p>Strengthening Institutional Capacity at Doctors for Global Health</p>	<p>This practicum project focused on improving the institutional capacity of Doctors for Global Health, a nonprofit, nongovernmental organization that accompanies communities in El Salvador, Mexico, and Uganda. The three core approaches involved centralizing and creating a system for the preservation of institutional knowledge, strengthening security protocols, and improving stakeholder engagement. Practically, this included an initial assessment of digital tools in use, identification of ongoing needs, review of best practices, and making recommendations. I attended board meetings to understand the organization's approach better. Once recommendations were approved, I executed changes, provided administrative and technological support, managed the website, and helped with relevant content creation.</p>
<p>Diabetes Awareness, Prevention, and Detection in Rural El Salvador</p>	<p>I partnered with Doctors for Global Health and La Asociación de Campesinos para el Desarrollo Humano (CDH) in Estancia, El Salvador, to develop a community health worker-based program to raise diabetes awareness and healthcare access. Non-communicable diseases, like diabetes, are the leading cause of morbidity and mortality in El Salvador. However, there are no current nationwide surveys of diabetes prevalence, and existing information focuses on urban populations. One-third of</p>

	<p>Salvadorians live in rural communities, with comparatively limited access to care. In Morazán, a rural department in northeastern El Salvador, patients often travel by foot across rugged terrain to receive care at government-run clinics. Government clinic services are limited but offered at a reduced price. However, they remain unaffordable to many in the region.</p> <p>The practicum began with a site visit, during which I visited CAIPES, the clinic run by CDH that served as a health center for the area, and got to know the leaders of CDH and the surrounding area. Using information from the site visit, other diabetes interventions in rural low-income countries, and direction from the clinic leadership, I outlined a diabetes self-management education and support (DSMES) intervention and budget for implementation in the community. Creating the budget involved researching drug pricing and other equipment sourcing, meeting with a salesperson for a point-of-care hemoglobin A1C machine, and looking into the prices and logistics of supplying the intervention in the rural community. I consolidated the intervention plan and budget into a concept note for submission to the World Diabetes Foundation.</p>
<p>Initiation of buprenorphine after ED visits for opioid use disorder</p>	<p>The purpose of this project was to describe the rates of initiation of buprenorphine, an evidence-based treatment for opioid use disorder, after emergency department visits for opioid overdose or opioid use disorder, as well as to describe patient, hospital, and policy-level factors associated with buprenorphine initiation. This research project used data from Medicaid databases in 7 states with high rates of opioid use and high quality data available.</p> <p>A secondary goal of this project was to communicate findings to policymakers, with a description of findings, possible explanations for the findings, and proposed policy options to address the overdose crisis in the United States.</p>
<p>Enhancing Mental Health Care in a Rural American Indian Community</p>	<p>White Cloud Health Center (WCHC), on the land of the Iowa Tribe of Kansas and Nebraska, is a small tribal health clinic (shown below) that provides care to enrolled members of all federally recognized tribes living in Brown and Doniphan Counties in Kansas, and Richardson County in Nebraska. It is in an impoverished area far from the nearest city and has a few providers dedicated to primary care services. It is the only clinic that serves the Iowa Tribe and the Sac and Fox Nation and is one of the only few clinics within an hour drive. I interviewed staff, identified barriers to treating mental health care in the community, and researched solutions. I developed a telemedicine proposal document that outlines how to implement telemedicine at this clinic to expand healthcare access to the community.</p>

	<p>I also wanted to create a long-term connection between White Cloud Health Center and Harvard School of Public Health.</p>
<p>Simulation Training of Obstetrical Emergencies for Midwives in Uganda</p>	<p>I did my practice project with a classmate who I met during orientation. She is a midwife from Maine and I am an obstetrician from California and we were both interested in volunteering in Uganda, a country with a high maternal mortality rate of 284 maternal deaths per 100,000 women, compared to 21 per 100,000 in the U.S.</p> <p>We partnered with two Ugandan physicians and the Busoga Health Forum, a community organization committed to improving health outcomes in eastern Uganda. They invited forty midwives to participate in our week of training in January 2024 at Jinja Regional Referral Hospital, Uganda. We obtained funding from the Rose Service Learning Fellowship to provide lunch and transportation for the midwives.</p> <p>We led simulation drills on postpartum hemorrhage, pre-eclampsia, breech, cord prolapse, shoulder dystocia, and neonatal resuscitation. We brought realistic models so that the midwives could practice hands-on maneuvers. We had the participants fill out pre- and post-training surveys. The midwives were engaged and expressed a desire for ongoing simulation training.</p> <p>The hardest part of our practicum was seeing the extreme shortage of supplies and medicines at the hospital. We realized that the midwives face challenges that go far deeper than skills training. We were inspired by the resourcefulness and dedication of the midwives and we plan to return to Uganda to make the training sustainable.</p>
<p>Evaluation of a Youth Peer Mental Health Program</p>	<p>Through a longstanding community-academic partnership with a large urban school district serving a predominantly Latinx and Black student population, school-based wellness centers were established to help address access and equity. Wellness centers function as health homes by providing medical, mental health, and social services for this school district students. Current efforts are focused on student engagement to help address youth mental health needs. Our team seeks to understand the impact of a novel youth peer mental health navigator program and provide recommendations for program enhancement. This project utilized a mixed methods and community-based participatory research approach. Two focus groups conducted virtually with peer mental health navigators and adult program mentors discussed connecting students to services, program interventions, impact of COVID-19, changes in mental health views, and program feedback. Focus group findings revealed that</p>

	<p>this peer mental health navigator program provides structure to talk about mental health, a need for diversity of clinicians, as well as increased in-person mental health resources. Future research is needed to examine the effectiveness of student peer mental health navigators regarding their impact on connecting students to care and improving mental health outcomes.</p>
<p>Solutions to Address Health Disparities and Promote Thriving in the Transgender and Gender Diverse Community</p>	<p>For my practicum, I founded an organization, Trans Health HQ, which is a one-stop shop for healthcare teams that centralizes resources around gender-affirming care. I spoke with over 100+ trans community members and 500+ clinicians, and characterized current barriers to accessing quality affirming healthcare. It was with the input and feedback of these key stakeholders, but also policymakers, insurance companies, and others in the healthcare system that I designed a theory-informed intervention. Our vision is to build a world where everyone, regardless of their gender identity, has access to dignified, affirming healthcare and we will equip all clinicians with the knowledge to effectively treat and advocate for their transgender patients in order to get there. During my practicum, I tested the pathways for change through MVPs (“minimum viable products”) and prototypes, identified a business model to ensure my organization was sustainable, and applied for grants, awards, and investment. I ended up competing in the New Venture Competition and the President’s Innovation Challenge. At the time of writing, I won second place at NVC and am a finalist in PIC, and was also awarded two fellowships (I was a Cheng Fellow with the Social Innovation + Change Initiative at the Harvard Kennedy School, and a part of the H2A HealthLab Accelerator) which gave me enough runway to work on Trans Health HQ full-time through the end of the year. Being a full-time social entrepreneur gave me an outlet to action on the information I was learning through my trans health research.</p>
<p>Language-concordant care and health equity</p>	<p>The primary objective of this practicum project was to work with Canopy Innovations, a division of Transcendent Endeavors, which is a fast-paced technological start-up company offering digital tools to help healthcare institutions address gaps related to language access through the use of NIH-funded, innovative solutions, including compliance and language training. It involved working with Canopy’s research and development team to develop a toolkit and implementation plan related to language-concordant and bilingual care in order to support health plans and hospitals to meet health equity accreditations, outlined in ACA Section 1557, the NCQA Health Equity Accreditation standards, and including other resources that were relevant. This was to help advance health equity efforts</p>

	<p>related to work with bilingual staff and language concordant care, and implement standards of care in terms of equity and access, particularly for patients with limited English proficiency (LEP). It was thus designed to address access to health care services and the impact of the social determinant of language. Using internet-based research and write-ups, interviews with the head of Canopy’s research and development team and a language equity professional, as well as reviewing and discussing policy requirements, compiling resources and drafting documents, the project specifically aimed to provide guidelines to assist a health plan (with the potential for increasing support to others) in order to ensure that communities who may not have access to services due to limited English proficiency (LEP) are able to receive these.</p>
<p>Wellness + Mental Health Podcast</p>	<p>Foster open and vulnerable conversation about daily mental health practices and the interpersonal emotional challenges that come with the pressure of their fast paced professions and high impact careers. Aim: Amplifying voices of academics, health professionals, students, and administration in the media (This allows for perspectives from diverse sectors to promote mental health among the community of listeners.)</p>
<p>Optimizing Reentry of Women in Maine After Incarceration</p>	<p>Background: The incarceration of women is a complex issue, with pathways leading to incarceration involving women suffering from a history of abuse, economic challenges, and mental health issues. About 73% of women in state prison have mental illness, and 82% are incarcerated for non-violent offenses. Incarceration worsens health outcomes, leading to chronic health conditions, and stigma exacerbates socioeconomic struggles, affecting changes in employment, housing, and access to healthcare.</p> <p>Aim: This project aimed to improve women's health at Maine Correctional Center (MCC) by identifying gaps in improving preventative health interventions.</p> <p>Methods: A literature review and needs assessment identified gaps in care, and a recommendation report was created.</p> <p>Findings: The findings revealed that while the facility has an extensive reentry program, women often struggle with healthcare access and access to transportation, housing, and emotional support upon</p>

	<p>reentry into society.</p> <p>Recommendations: Recommendations include strengthening social capital, involving families in the reentry process, encouraging the use of peer mentors, and creating a case worker position for follow-up after release. Future projects should also explore mental health services provided at MCC to address the significant challenges faced by incarcerated women.</p>
<p>Extremely Early Initiation of Vasopressors Might not Decrease Short-Term Mortality for Adults with Septic Shock: A Systematic Review and Meta-Analysis</p>	<p>The ongoing discussion surrounding resuscitation in sepsis and septic shock has predominantly centered on intravenous fluids, antibiotics, and the choice of vasopressors. The precise timing for the commencement of vasopressor therapy during the treatment course remains uncertain. I systematically refined findings on the initiation timing of vasopressors in septic shock and performed meta-analyses contrasting the impact of early initiation with that of late initiation on clinical outcomes. I employed statistical software to conduct the meta-analysis of the pooled data.</p>
<p>Public Health &amp; Homelessness State Policy Playbook</p>	<p>Researched potential and existing solutions to inform a "policy playbook" for state public health leaders to create programs and partnerships that will support homeless response systems.</p>
<p>Developing a City Plan for a Gender Equity Index</p>	<p>In their efforts to foster an inclusive and equitable community, the Cambridge Commission on the Status of Women (CCSW) - the City department focused on empowering women and girls - proposed initiating the work on promoting gender equity.</p> <p>Main challenge: At the project's outset, understanding the most suitable ways forward, access to the necessary data sources, and the required collaborations were limited.</p> <p>Aim: to develop a proposal for integrating a gender equity perspective throughout all city policies and programs.</p> <p>Objectives:</p> <ul style="list-style-type: none"> <li>• Assess and identify the best practices for promoting gender equity in the U.S. and globally</li> <li>• Examine scientific evidence related to gender equity</li> <li>• Navigate and map the internal process for data collection and reporting</li> <li>• Formulate recommendations for the ways forward.</li> </ul> <p>During the time of the practicum, I was able to help CCSW:</p> <ul style="list-style-type: none"> <li>• Transition the project from a conceptual stage to a formal Gender Equity Initiative (GEI)</li> </ul>

	<p>proposal</p> <ul style="list-style-type: none"> <li>• Craft a GEI proposal and preliminary action plan to guide the strategy's development</li> <li>• Promote intersectionality to be integrated as a central analytical framework</li> <li>• Recommend a shift from individual interventions to addressing structural determinants</li> <li>• Identify potential project domains and corresponding indicators based on policy and literature reviews</li> </ul> <ul style="list-style-type: none"> <li>• Compile a comprehensive list of data sources, highlighting gaps</li> <li>• Establish connections and fostered knowledge exchange with the Government of Victoria, Australia, and the Women and Public Policy Program at Harvard Kennedy School</li> <li>• Initiate internal collaborations with LGBTQ+, public health, community development, diversity, equity and inclusion, and police departments for broader support</li> <li>• Develop recommendations and next steps.</li> </ul>
<p>Bridging Gaps in Mental Healthcare: A Comprehensive Analysis and Reflection on the Implementation of Culturally Competent Interventions in Texas</p>	<p>This project at the Mental Health For All Lab focused on translating and culturally adapting training materials for the EMPOWER program to improve mental health interventions for Spanish-speaking populations in Texas. The primary aim was to enhance the accessibility and effectiveness of these interventions among frontline healthcare workers and patients. A structured methodology involving initial automated translation followed by meticulous reviews ensured linguistic accuracy and cultural relevance. The adaptation addressed significant linguistic nuances and cultural specifics, such as appropriate terminology for mental health conditions that often lack direct equivalents in Spanish. Feedback from healthcare providers indicated that the adapted materials significantly improved comprehension and engagement among Spanish-speaking clients, thereby enhancing the delivery of mental health services. This initiative not only highlights the importance of culturally competent health interventions but also sets a precedent for future efforts aiming to bridge healthcare disparities. The findings suggest that continuous refinement of translation processes and expanded cultural adaptation are crucial for the ongoing success of such programs.</p>
<p>The Predictive Landscape of PTSD and Depression: Methylation Risk Scores as</p>	<p>The Biology of Trauma Initiative aims to explore how trauma, particularly in childhood and throughout one's life, affects individuals at a biological level and influences their thoughts, emotions, and behaviors, often lasting a lifetime.</p>



<p>Biomarkers of Mental Health</p>	
<p>Developing an App Interface to Help Pregnant Persons with Opioid Use Disorder</p>	<p>Background: Management of opioid use disorder (OUD) during pregnancy through engagement with prenatal care and medication-assisted treatment is crucial. A county hospital was interested in providing a pregnancy health mobile app to all of its pregnant patients affected by OUD.</p> <p>Objective: Develop app features that utilize precision medicine to provide support for the specific needs of OUD-affected pregnant persons.</p> <p>Methods: Engaged in regular team discussions to plan, design, and revise what the OUD features of the app would consist of and how to integrate them into the existing app.</p> <p>Findings: The four main OUD features that were incorporated into the app were an OUD screening, a cravings measurement instrument, a cravings management tool, and a glossary of hyperspecific resources.</p> <p>Conclusion: The use of precision medicine and established databases allowed us to incorporate four app features that address the specific needs of OUD-affected pregnant persons.</p>
<p>The effect of climate change and climate-responsive hazards on health in the Philippines: A scoping review</p>	<p>Climate change is an acute threat to the Philippines. While there is a general understanding of climate change effects, its effects on health are not well established. This study aims to understand the current state of knowledge on the interaction of climate change and health in the Philippines.</p> <p>We searched two databases (PubMed and EMBASE) for peer-reviewed literature using structured search terms to cover health, climate change, and climate-responsive hazard (i.e. typhoons, flooding, sea-level rise, and heat) terms. All articles were assessed by two reviewers for title and abstract review, then for full-text review. Disagreement was resolved by a third reviewer. Key findings of each article were summarized.</p> <p>The search returned 2939 results. After removal of duplicates and initial screening, 2094 articles were</p>

	<p>excluded. A total of 153 articles were included for full-text review. There were 34 studies in the category of general climate change, 80 on typhoons, 26 on floods, 13 on heat, and no articles on sea-level rise.</p> <p>Preliminary results show that there is limited information on climate change and climate-responsive hazards' effects on health in the Philippines. Many studies in the typhoon section discussed health impacts after specific natural disasters (e.g. Typhoon Haiyan). Studies in the flood section focused the role of floods on infectious diseases. There was a lack of Philippines-specific literature on sea-level rise. Next steps include completion of full-text review, during which stakeholders from the Philippines will be consulted. The information will be disseminated as a publication and as clinician toolkits in the Philippines.</p>
<p>Improving the Patient Feedback Process for Amputees in India</p>	<p>The Jaipur Foot Association is the innovator of both the infamous Jaipur Leg, and the Stanford Jaipur Knee. They are the largest NGO in the world to provide free leg prosthetics. They have 33 centers across India, and support 80-100 patients a day at their headquarters. Patients can walk into any of their centers without prior appointments. Patients who need below-the knee prosthetics are typically served within 1 day, and patients who need above-the knee-prosthetics are typically served within 3 days. Jaipur Foot has a strong ethos of being patient centric and serving patients with dignity. Our practicum project had two objectives: (1) To analyze patient feedback data on their experience at the Jaipur Foot Association, and the efficacy of their new prosthetics, so that we can identify patterns of feedback, and opportunities for improvement. (2) To assess the current organizational process for gathering and documenting patient feedback and identify ways to make process more robust and sustainable for the organization, and improve the quality of data they are receiving from patients. We started the project onsite in Jaipur and used a combinations of methods including observing demos and workshops, conducting interviews, and aggregating feedback data from patients. Ultimately, we provided a Data Analysis Report, and a Recommendations Report to Jaipur Foot.</p>
<p>Program Manager- Ukraine Trauma Care Response Program</p>	<p>My practicum was through Harvard Humanitarian Initiative's Ukraine Trauma Care Response Program, which focuses on enhancing trauma care capacity in conflict-affected areas of Ukraine. I assisted the Program Manager in all aspects of strategy, planning, and implementation of this program. I developed internally- and externally-facing deliverables for various phases of the program,</p>

	<p>designed and developed academic posters, and assisted in data collection and analysis. I presented the posters at two academic conferences, and won the Outstanding Poster Award from the Department of Global Health and Population for my work.</p>
<p>Measuring the Patient Experience of Mental Health Care from a Youth Perspective: A Selective Review of Patient-Reported Experience Measures</p>	<p>This practice project centers on developing and evaluating patient-reported experience measures (PREMs) specifically tailored for child and adolescent mental health care. It critically assesses the satisfaction and care experiences of young patients in psychiatric settings. A comprehensive review of literature from 1990 onwards was conducted using the MEDLINE database to identify scales measuring patient satisfaction in youth mental health care. This project aims to catalog and analyze these instruments' structure, content, and psychometric properties, such as validity and reliability.</p> <p>The evaluation highlighted the development and use of various scales across different countries, emphasizing the need for culturally sensitive and applicable measures. The review revealed a variety of satisfaction dimensions and underscored the importance of capturing a broad spectrum of care experiences from the patient's perspective. It discussed the strengths and limitations of current scales and proposed directions for future research, emphasizing the need for methodologically rigorous tools that can capture the nuanced perspectives of young patients effectively.</p> <p>This project is significant as it contributes to refining mental health service strategies by ensuring that patient satisfaction measures accurately reflect the unique needs and experiences of children and adolescents. By enhancing our understanding and measurement of patient satisfaction, mental health services can be better tailored to the specific needs of young patients, thereby improving treatment outcomes and engagement in psychiatric care.</p>
<p>Public Health and Homelessness Practicum</p>	<p>The practicum project is focused on developing a policy playbook that would inform public health practitioners in housing and homelessness work. It would take the form of an action-oriented toolkit for state leaders to create programs and policies that can support homeless response systems at the local and state level, across the United States.</p>