
Implementing Sustainable Evidence-based Interventions through Engagement (ISEE)

Annual Report

NYU School of Global Public Health

September 2022 to August 2023



708 Broadway
New York, NY 10003
gph.isee@nyu.edu

 [@gph_isee](https://twitter.com/gph_isee)

 [@gph.isee](https://www.instagram.com/gph.isee)

ISEE Lab Mission:

Our mission is to educate, discover, engage, and improve the health of communities in low- and middle-income countries (LMICs) via the delivery of evidence-based implementation strategies to achieve optimal health outcomes. Our team comprises talented multidisciplinary individuals with various areas of expertise and diverse concentrations, including Global Health, Biostatistics, Epidemiology, Community Health, Health Education, Healthcare Management, and Genetics.

ISEE Lab Values:

As a laboratory, we learn, grow, and value teamwork to accomplish our important and impactful work.

ISEE Research Areas:

Our lab currently focuses on research on advancing implementation in global settings, implementations to improve Maternal Health Outcomes, and evidence-based implementations for Sickle Cell Disease & HIV/AIDS.

Letter from the Director:



Dr. Emmanuel Peprah

It is truly a pleasure to celebrate the **five-year anniversary** of the Implementing Sustainable Evidence-based interventions through Engagement (ISEE) Lab at the NYU School of Global Public Health. Our lab was officially established in 2019 after Dr. Gyamfi coined our name (ISEE), which foresaw the importance of sustainable context driven advancements in the field of implementation science beyond the present. The vision of ISEE is to transform global health and implementation research and foster meaningful change by *translating evidence into action*. In that vein our vision is **to discover and implement evidenced-based interventions (EBIs) that will improve the health of people by engaging communities in LMICs to achieve optimal health outcomes.**

Our research aims to synthesize quality evidence and answer important questions about the most effective Evidence-based Interventions (EBIs) for the patients, families, and communities residing in LMICs and how to implement effective interventions for sickle cell disease, obstetric hemorrhage, and HIV/AIDS to increase adoption in populations living in LMICs.

As we celebrate five years of the ISEE Lab, we cherish the importance of creating an environment that has enabled graduate and undergraduate students to achieve positive outcomes; students have won awards (e.g., 2020 APHA - Lyndon Haviland Student Assembly Annual Meeting Award and 2022 NYU Undergraduate Research Conference Award), presented at national and international conferences, matriculated to doctoral programs, or transitioned to the workforce (both the private sector and government).

Our research output has been productive; we have produced over 40 peer-reviewed publications, over half in high-impact journals. More than 50% of our publications include NYU graduate and undergraduate students as co-authors. We have had presentations at the American Heart Association (AHA), the American Public Health Association (APHA), and the American Society of Hematology, in addition to the Academy Health Annual Dissemination and Implementation Science meetings.

To translate evidence into action in implementation research, ISEE has facilitated the development of three tools in less than five years to enable implementation research in LMIC.

- **ISEE's ASSESS tool** is the first and the only implementation science systematic reporting tool on the Enhancing the Quality and Transparency Of Health Research (EQUATOR) Network website. ASSESS supports both reporting and critical appraisal of implementation research studies and includes quantitative, qualitative, and mixed methods assessment of intervention and implementation outcomes. As of May 2023, the ASSESS tool has been accessed **> 1,809 times** from the EQUATOR website since it was accepted for upload by the EQUATOR in November 2022.
- The second, the **CATALYTIC tool**, is a 12-item, situationally tailored psychometric tool for measuring the extent of contextual influence on the feasibility of implementing cardiovascular health interventions in LMICs. Stakeholders can use CATALYTIC to evaluate program viability at different stages of implementation routinely.

- Finally, the last tool we have is a critical appraisal checklist of implementation studies based on the **Critical Appraisal Skills Programme (CASP)**, and is available on the [ISEE Lab website](#). This checklist provides a structure to analyze studies for students unfamiliar with implementation research.

Training is critical to our mission; we will continue to train graduate students to become skillful, collaborative researchers and public health practitioners. ISEE has trained and mentored over 50 students. Our Senior Global Public Health Fellow (SGPHF) Mentorship Program encourages one-on-one mentoring and group meetings to enhance the training of its students, where fellows serve as peer mentors, role models, and advocates for new ISEE lab students.

I am elated about our accomplishments over the past five years and look forward to moving our mission over the next five years: *to develop leaders in implementation science who will transform global health by improving health outcomes and the well-being of patients, families, and communities through the implementation of sustainable interventions to reduce the burden of sickle cell disease, maternal health conditions and HIV/AIDS.*

Lab Sections:



Section on Implementing Evidence-Based Interventions for Sickle Cell Disease (SCD)

- To understand the who, why, where, and how interventions for SCD management are adopted by certain communities and not others, and ultimately implement sustainable and scalable evidence-based interventions in a context-appropriate manner.
- Currently examining the evidence in the existing published literature for SCD management strategies in LMICs, thus informing the most effective EBIs and suitable implementation strategies

Section Leader: Joyce Gyamfi EdD, MS



Section on Adapting Interventions to Improve Maternal Health Outcomes (IMH)

- Implementing EBI to prevent obstetric hemorrhage (OH) through collaborative implementation research with partners in LMICs (e.g., Tanzania and Nigeria).
- To assess contributing factors to OH-related morbidity and mortality at urban facilities in Nigeria and inform the development of an EBI to prevent OH.

Section Leader: Emmanuel Peprah, PhD



Evidence-Based Public Health & Systematic Review Practice

- Evidence-Based practice and instruction in global public health
- Framing appropriate public health evidence-based research questions addressing quality of public health evidence
- Conducting population-based search strategies and utilization of PRISMA checklists.
- Utilization of public health databases, PROSPERO, and OSF.io.
- Utilization of tools such as EndNote, Covidence, and Google Applications for “knowledge informatics” support

Section Leader: Dorice Vieira, MLS, MA, MPH



Section on Advancing the Science of Implementation in Global Settings (ASI)

- Developing tools/instruments/methodology to advance the field of implementation science by either creating and/or adapting available tools/methods in a context-specific manner for low-resource settings.
- ASI underpins the research of ISEE and is primarily involved in evidence generation to guide the development of hybrid implementation studies that assess the clinical effectiveness of EBIs focused on our core priority research areas.

Section Leader: John Pateña, MPH, MA



Section on Advancing EBI to Improve Outcomes for People Living with HIV/AIDS (IPWH)

- Building the capacity of rigorous data availability by creating a new cohort of PWH who use substance (i.e., HIV+/SU+) in Africa, and characterize the magnitude of substance use (SU, e.g., frequency, and periodicity), mortality, clinical outcomes, and substance use disorders in Nigeria, South Africa, and Uganda.
- To use a multi-omics approach (i.e. genome, transcriptome, and proteome analysis) to elucidate genetic inflammasome activation in PWH in SSA populations and examine its relationship to SU frequency

Section Leader: Emeka Iloegbu, MSc, MPH

Publications:

Sickle Cell Disease	• Characterization of medical conditions of children with SCD in the USA: 2007–2018 National Health Interview Survey (NHIS) (2023) • Barriers to therapeutic use of hydroxyurea for SCD in Nigeria (2022) • Implementation science research for the scale-up of EBI for SCD in Africa (2021) • EBIs implemented in LMICs for SCD management: SR of RCTs (2021)
Maternal Health	• Applying the WHO ICD-MM classification system to maternal deaths in a tertiary hospital in Nigeria: A retrospective analysis from 2014–2018 (2021) • Implementation outcomes of policy and programme innovations to prevent OH in LMICs: a systematic review (2020) • Innovation in policy and program implementation to prevent OH in LMICs: a SR. APHA, (November 2020).
Assessment & Advancement of Implementation Science Research	• Assessing descriptions of scalability for hypertension control interventions implemented in LMICs: A systematic review (2022) • Development of the ASSESS tool (2022) • The role of implementation science in advancing resource generation for health interventions in LMICs (2021)
Improving HIV Outcomes	• An evolving HIV epidemic in the MENA Region: a scoping review (2023) • Using a syndemics framework to understand how substance use contributes to morbidity and mortality among people living with HIV in Africa (2022) • HIV, tuberculosis, and food insecurity in Africa (2022) • An emerging syndemic of smoking and cardiopulmonary diseases in people living with HIV in Africa (2021)

APHA, American Public Health Association; BP, blood pressure; COVID-19, Coronavirus Disease; CVD, cardiovascular disease; EBI, evidence-based intervention; HIV, human immunodeficiency virus; IFGO, International Federation of Gynecology and Obstetrics; ICD-MM, International Classification of Disease – Maternal Mortality; LMICs, low and middle-income countries; MENA, Middle East and North Africa; MH, maternal health; NCS, non-communicable disease; PHP, Public Health Partnership; OH, obstetric hemorrhage; RCT, randomized controlled trial; SR, systematic review; SCD, Sickle Cell Disease; WHO, World Health Organization; US, United States

Abstracts

[Successes and challenges of intervention and implementation strategies addressing MH and racism in the US: a scoping review. APHA. 2020](#)

Lab Members:

ISEE is something that grew organically and included very high-performing self-motivated individuals.



Current students for the academic year 2022-2023	Past students (Class of 2022)	Senior public health fellows
• Deborah Adenikinju • Chloé Ambrose • Etonam Amesimeku • Brian Angulo • Himani Chhetri • Judy Fordjuoh • Leah Frerichs • Tania Hameed • Nousheen Inayat • Arvin Brandon Karbasi • Sumedha Kulkarni • Shreya Meda • Rodina Mohamed • Khady Ndiaye • Elizabeth Noble • Nana Osei-Tutu • Kahini Patel • Aishwarya Rao • Christina Ruan • Diksha Thakkar • Sukruthi Thunga • Cong Wang • Sophia Zunig	• Mentalla Abbas • Deborah Adenikinju • Cindy Anim-Gyan • Janel Boyles de Rondon • Disha Chander • Judy Fordjuoh, • Farha Islam • Nada Kelkawi • Mildred Kroung • Stefany Lazieh • Justin Lee • Carly Malburg • Temi Ojo • Jumoke Opeyemi • Fatoumata Sakho • Jaimie Smith • Esther Sowunmi • Hanan Yassin	• Joyce Gyamfi, Director • Deborah Adenikinju • Amy Diawara • Chioma Egekeze • Sabrina Epou • Carly Malburg • Jumoke Opeyemi • Aishwarya Rao

Acknowledgements:

Thank you to the following ISEE Lab members for their contribution to the creation of this report: Sumedha Kulkarni, Aishwarya Rao, Nousheen Inayat, John Patena.