Alisa Hamilton

alisa.j.hamilton@gmail.com
+1 (207) 944-3211

Public health researcher with a decade of experience spanning epidemiology, international development, and mental health clinical practice passionate about using computational methods to promote health equity.

EDUCATION

London School of Hygiene & Tropical Medicine, UK ⸻ Sep. 2019
MS Global Mental Health, Distinction
- Selected coursework: epidemiology, statistical methods, economic evaluation, implementation science
- Dissertation: Systematic review of expressive arts interventions for children's anxiety in hospital settings

Goldsmiths, University of London, UK ⸻ Jul. 2016
MA Art Psychotherapy, Distinction
- Registration with the UK Health and Care Professions Council (HCPC)
- Clinical placements at an NHS secondary adult mental health clinic and a public preschool
- Final Clinical Report: Case study of racial identity and difference in art therapy theory and practice

Bates College, Maine, USA ⸻ May 2011
BS, Anthropology, Suma cum laude
- Major: Anthropology; Minor: French Language; Quantitative coursework: Calculus I & II, Physics, Chemistry
- Honors Senior Thesis: Ethnographic study of media influences on women's perceptions of pregnancy and birth
- Awards: Phi Beta Kappa, Hamill Thesis Prize, Barlow Fellowship, Maynard & Clara Eldridge Scholarship
- Study Abroad: CIEE Film Studies, Prague, Czech Republic; SIT National Identity & the Arts, Dakar, Senegal

EXPERIENCE

One Health Trust (formerly the Center for Disease Dynamics, Economics & Policy) ⸻ Washington, DC
Senior Research Analyst ⸻ Jul. 2020 – Present
- Conducting statistical analyses on the drivers of COVID-19 and antibiotic prescribing for the CDC Modeling Infectious Diseases in Healthcare Network (MInD) under the supervision of Dr. Eili Klein
- Building compartmental models to project malaria and HIV vaccine-averted health burden for the WHO Expert Working Group on Vaccines and Antimicrobial Resistance
- Managing and preparing a successful application to the CDC five-year funding mechanism, Developing Healthcare Safety Research (SHEPheRD), and subsequent requests for task order proposals
- Maintaining the ResistanceMap database and website on global antimicrobial resistance and use trends
- Manuscript writing and submission; data management, processing, and visualization; literature reviews
- Managing recruitment, hiring, and onboarding of new research analysts and technicians

World Health Organization ⸻ Washington, DC
Knowledge Exchange Advisor ⸻ Apr. – Jun. 2020
- Managed the collection and dissemination of provider experiences highlighting innovation and best practice in mental health service delivery during the COVID-19 pandemic for the Mental Health Innovation Network
- Edited and published 20 blog posts, 14 video interviews, a webinar, a peer-reviewed article, and a policy report summarizing lessons learned from over 100 submissions from providers. Available from: bit.ly/3WtN5ap

Art Therapy Clinical Practice ⸻ Dakar, Senegal
Art Therapist ⸻ Oct. 2016 – Jul. 2018
- Delivered individual and group art therapy sessions in French, West African Sign Language, Wolof, and English at a hospital pediatric oncology unit (*Hôpital Aristide Le Dantec*), a school for deaf children (*École Renaissance des Sourds*), and a community children's center (*ImagiNation Afrika*)
- Facilitated capacity-building workshops for doctors, nurses, and educators on children's mental health
- Wrote proposals and evaluations for funders, managed contracts and budgets, and attended regular supervision

Art Therapy Clinical Placement ⸻ London, UK
Trainee Art Therapist ⸻ Nov. 2014 – Aug. 2016
- Delivered individual and group art therapy sessions for adults with depression, anxiety, PTSD, schizophrenia, and dementia at a secondary mental health clinic (*Psychological Services, North East London Foundation Trust*)
- Implemented a children's center's first art therapy program, delivered individual and group therapy sessions, met with parents, and presented to staff on art therapy and children's mental health (*Maxilla Children's Center*)

ABACS, LLC   Woburn, MA
Behavior Technician   Jan. – Jul. 2014
- Delivered Applied Behavioral Analysis (ABA) therapy to children with autism spectrum disorders

Tostan   Dakar, Senegal
Graphic Designer & Web Editor   Jan. – Sep. 2013
- Executed rollout of the new brand across six West African countries for an international human rights organization known for its community-led education programs and efforts to end female genital cutting and child marriage
- Designed materials using Adobe Creative Suite and managed content on the new website using Drupal
- Coordinated with international partners and regional teams on logistics and budgets for training workshops

Communications Assistant   Jan. – Dec. 2012
- Managed social media and website content, produced videos, and wrote and published articles and blog posts

Programs Assistant   Jun. – Dec. 2011
- Contributed to grant management and reporting with the International Programs Officer

RESEARCH

Inuka Coaching   Washington, DC
Research Intern   Mar. – Apr. 2020
- Reviewed literature on tele-mental health interventions in low- and middle-income countries for an app-based coaching service using an evidence-based adaptation of Problem Solving Therapy

REACH Study   London, UK
Research Volunteer   Feb. – Jul. 2019
- Delivered questionnaires and cognitive tasks, entered data, and assisted with public engagement activities for the REACH Study (Resilience, Ethnicity, and Adolescent Mental Health), a multi-site cohort study exploring mental health risk factors among high school students in South London conducted by King's College London

NECASL Study   Lewiston, ME
Student Researcher   Aug. 2008 – Sep. 2010
- Analyzed qualitative data using NVivo for the NECASL study (New England Consortium on Assessment and Student Learning), a multi-site cohort study exploring student transitions to university
- Conducted two-hour, semi-structured interviews with 12 students at Bates College three times a year

COURSES & TRAINING

Mathematics for Machine Learning Specialization   Online
Imperial College London via Coursera   Sep. 2022 – present
- Three courses on linear algebra, multivariable calculus, and Principal Component Analysis (PCA)

Systems Science and Obesity   Online
Johns Hopkins University via Coursera   Sep. 2022
- Four-week course on systems science applications in public health using the example of the US obesity epidemic
- Final project: Agent-based model of food acquisition behavior using NetLogo

Python for Everybody Specialization   Online
University of Michigan via Coursera   Mar. – Jun. 2020
- Four courses on programming, data structures, retrieving web data, and manipulating SQL databases using Python

Department of Psychology   Online
York County Community College   Jan. – Apr. 2014
- Introduction to Psychology; 3 university credits; GPA: 4.0/4.0
- Psychology Across the Lifespan (Human Development); 3 university credits; GPA: 4.0/4.0

SKILLS

- Languages: Fluent English and French, Intermediate Wolof, Beginner West African Sign Language
- Programming: Python, Stata, R, SQL; GitHub: https://github.com/hamilton89

PUBLICATIONS

Hamilton A, Poleon S, Cherian J, Cosgrove S, Laxminarayan R, Klein E. COVID-19 and Antibiotic Prescriptions in the United States: A County-level Analysis. *Open Forum Infectious Diseases* [Accepted]. Dec 2022.

Hamilton A, Haghpanah F, Hasso-Agopsowicz M, Frost I, Lin G, Schueller E, Klein E, Laxminarayan R. Malaria Vaccine Impact on Cases, Drug-resistant Cases, and Deaths in Africa: A Modeling Study. *Nature Communications Medicine* [Under review]. 2022. Available from: https://doi.org/10.21203/rs.3.rs-2362054/v1

Haghpanah F, **Hamilton A**, Klein E. Analysis of the Trade-offs of Effectiveness and Availability of mRNA Influenza Vaccine on Hospitalization and Mortality. *Vaccine* [Under review]. 2022.

Allel K, Day L, **Hamilton A**, Lin L, Furuya-Kanamori L, Moore C, Laxminarayan R, Yakob L. Global Antimicrobial-resistance Drivers? An Ecological Country-level Study at the Human-animal Interface. *The Lancet Planetary Health* [Under review]. 2022.

Lin G, **Hamilton A**, Gatalo O, Haghpanah F, Igusa T, Klein E. Investigating the Effects of Absolute Humidity and Movement on COVID-19 Seasonality in the United States. *Nature Scientific Reports*. 2022 Oct 6;12(1):16729.

Hamilton A, Strauss AT, Martinez DA, Hinson JS, Levin S, Lin G, et al. Machine Learning and Artificial Intelligence: Applications in Healthcare Epidemiology. *Antimicrobial Stewardship & Healthcare Epidemiology*. 2021 Oct 7;1(1):e28.

Gatalo O, Tseng K, **Hamilton A**, Lin G, Klein E. Associations Between Phone Mobility Data and COVID-19 Cases. *The Lancet Infectious Diseases*. 2021 May 1;21(5):e111.

Hamilton A, Sala G, Qureshi O, Eaton J. Stories from the Field: Mapping Innovation in Mental Health During the COVID-19 Pandemic. *Intervention*. 2020 Nov 30;18(2):159–65.

MANUSCRIPTS

Hamilton A, Poleon S, Lin G, Haghpanah F, Tulchinsky A, and Klein E. Incorporating Endogenous Human Behavior in Mathematical Models of COVID-19 Transmission: A Systematic Scoping Review. 2022.

Lin G, Tulchinsky A, **Hamilton A**, and Klein E. Quantifying Prevalence-dependent Behavior During the COVID-19 Pandemic: A Modeling Study. 2022.

Lin G, Poleon S, **Hamilton A**, et al. Modeling the Burden of Community Transmission of Healthcare-associated (HAI) Pathogens on Acute Care Hospitals: A Systematic Scoping Review. 2022

CONFERENCE PRESENTATIONS

Hamilton A, Haghpanah F, Hasso-Agopsowicz M, Frost I, Lin G, Schueller E, Klein E, Laxminarayan R. Malaria Vaccine Impact on Cases, Drug-resistant Cases, and Deaths in Africa: A Modeling Study (Poster). In: *American Society of Tropical Medicine & Hygiene*. Seattle, WA. 2022 Nov.

Hamilton A, Poleon S, Cherian J, Cosgrove S, Laxminarayan R, Klein E. COVID-19 and Antibiotic Prescriptions in the United States: A County-level Analysis (Poster). In: *IDWeek*. Washington, DC. 2022 Oct.

Lin G, **Hamilton A**, Yang Y, Gatalo O, Klein E, Bhaduri A. Utilizing Bayesian Methods for COVID-19 Forecast and Statistical Inference. In: *Winter Simulation Conference*. Online. 2020 Dec. Available from: https://www.researchgate.net/publication/347440918_Utilizing_Bayesian_Methods_for_COVID-19_Forecast_and_Statistical_Inference

PROFESSIONAL MEMBERSHIPS

- American Society of Tropical Medicine & Hygiene (ASTMH), Member   (2022 – Present)
- Infectious Diseases Society of America (IDSA), Member   (2022 – Present)
- UK Health & Care Professions Council (HCPC), Registered Art Therapist   (2016 – 2019)