

Hillary Mariko Topazian

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🌐 Website

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Epidemiologist with strong expertise in field research and mathematical modelling. I have 9+ years of research experience in infectious disease and cancer epidemiology, with emphases on vaccines and geospatial analysis. I have lived abroad in Kenya and Malawi, and have worked with a diversity of partners including the National Institutes of Health, international Ministries of Health, academic partners, policymakers, and non-governmental organizations. I am excited to leverage my analytical, creative, and problem-solving skills to tackle diverse, real-world applications.

Education

2017 – 2021	University of North Carolina (Chapel Hill, NC) – PhD in Epidemiology Concentration: Infectious Disease Epidemiology
2015 – 2017	Harvard University (Boston, MA) – MSc in Epidemiology Concentration: Infectious Disease Epidemiology
2009 – 2013	Wheaton College (Wheaton, IL) – BS in Biology Minor in Economics, <i>Magna cum laude</i>

Skills

Technical	Statistical analysis, geospatial analysis, mathematical modelling
Programming	R, SAS, Stata, ArcGIS, QGIS

Professional Experience

2021 – present	Imperial College London (London, UK) <i>Postdoctoral Research Associate in Malaria Epidemiology</i> <ul style="list-style-type: none">Extended mathematical models to inform malaria eradication strategies.Modeled the cost-effectiveness of the R21/Matrix-M and RTS,S/AS01 malaria vaccines.Created a metapopulation model to simulate the impact of human movement on malaria prevalence across sub-Saharan Africa.Characterized the representation of women and minoritized groups at the School of Public Health in order to remove barriers to publication and career advancement.
2017 – 2021	University of North Carolina (Chapel Hill, NC) <i>Graduate Research Assistant</i> <ul style="list-style-type: none">Led statistical analyses on global projects involving HIV in South Africa, malaria vaccine implementation in Malawi, sickle cell surveillance, and HPV vaccine recommendation.Collaborated with Malawi's National Malaria Control Programme; two summers in-country.
2015 – 2016	Dana-Farber Cancer Institute (Boston, MA) <i>Research Assistant</i> (part-time job during masters studies) <ul style="list-style-type: none">Wrote a grant to support research infrastructure and planning in Rwanda.Reviewed the literature on cervical cancer prevention for the Rwanda Biomedical Centre.
2014 – 2016	National Cancer Institute (Rockville, MA & Nairobi, Kenya) <i>Cancer Research Training Award Fellow</i> (one year fellowship in Washington, D.C.) <ul style="list-style-type: none">Improved cancer control globally by coordinating with stakeholders in sub-Saharan Africa. <i>Consultant</i> (summer position in Nairobi, Kenya during masters studies) <ul style="list-style-type: none">Designed an evaluation toolkit for stakeholders in Kenya and published a qualitative assessment of Kenya's National Cervical Cancer Prevention Program.
2014	World Gospel Mission (Bomet, Kenya) <i>Volunteer</i> <ul style="list-style-type: none">Launched a population-based case-control study on esophageal cancer.Assisted the community health team in the field with community capacity building.

Community Engagement

2024 – present	Malaria No More United Kingdom <i>Epidemiologist and Malaria Modeller</i> <ul style="list-style-type: none">• Malaria modeller for a film collaboration with Malaria No More UK (a non-profit), the Mill (a creative community), David Beckham, and global public health leaders.
2021	Disaster Assistance Response Team, Samaritan's Purse <i>Technical Advisor</i> (2-week deployment) <ul style="list-style-type: none">• Managed data collection and analysis at a COVID-19 field hospital.
2017 – present	Pan-African Academy of Christian Surgeons <i>Epidemiology Consultant</i> <ul style="list-style-type: none">• Led data collection and analysis for various clinical studies across Africa.
2016 – present	African Esophageal Cancer Consortium <i>Epidemiology Consultant and Member</i> <ul style="list-style-type: none">• Led data collection, analysis, and reporting for surveys of endoscopy capacity across Africa.

Leadership Experience

2022 – present	Graduate Research Supervision <ul style="list-style-type: none">• Supervised three Epidemiology Master's students in summer research projects (18 weeks each) and one PhD student (2 years+)• Assisted students in defining research topics, conducting data collection and model parameterization, analyzing results, and communicating research findings.
2016 – 2023	Graduate-level Instruction <ul style="list-style-type: none">• Organized and taught two week-long infectious disease modelling courses to graduate students, health professionals, and Ministry of Health officials in Malawi and The Gambia.• Lectured and planned graduate courses at Harvard University and the University of North Carolina on global health research ethics, R software, and the control of infectious diseases in low-income countries.

Awards and Fellowships

2022	Pump-priming Award for Young Investigators One-year grant (£25,000) for an infectious disease modelling workshop and follow-up in Malawi.
2020	Dissertation Completion Fellowship Awarded annually by UNC's Graduate School to talented final-year doctoral students.
2019	Explorations in Global Health Grant & the Nancy A. Dreyer Scholarship in Epidemiology Awarded (\$12,000) by UNC's Institute for Global Health and Infectious Diseases and the Department of Epidemiology for building research relationships with the Malawi Ministry of Health.
2017	Doctoral Merit Assistantship Award One-year award (\$50,000) to support research and study.
2016	Luys Foundation Scholarship Awarded to students of Armenian descent attending one of the world's top-10 universities, providing support for graduate program expenses and service opportunities in Armenia (\$33,000).

Publications and Presentations

Publications	Co-authored 40 peer-reviewed publications (12 as first author or co-first author) and three reports for national and international organizations. A full publication list is available on Google Scholar. Additional preprints are available upon request.
Presentations	Gave 8 invited conference presentations and seminars.

References provided upon request