

EDUCATION

University of Southern California, Los Angeles, CA

PhD in Population Health and Place (Defense expected November 2026)

Dissertation: *Harnessing Spatial Thinking for Hepatitis C Elimination*

Advisors: Jeffrey D. Klausner, MD, MPH; Darren Ruddell, PhD

University of Cape Town, Cape Town, South Africa

Master of Public Health -Epidemiology and Biostatistics track (July 2022)

Thesis: *Epidemiology of Human Leptospirosis in Western Cape, South Africa*

Advisors: Sipho Dlamini, MD; Lynthia Paul, PhD; Jasantha Odayar, PhD

Makerere University, Kampala, Uganda

Bachelor of Science, Wildlife Health and Management (January 2019)

Thesis: *Prevalence of Cryptosporidium and Giardia in Mountain Gorillas and Humans in Uganda*

Advisor: Celsus Sente, PhD

RESEARCH INTERESTS

Spatial Epidemiology, Infectious Diseases, Syndemics, geospatial analytics, Healthcare Access, Social determinants of health, machine learning, public health

PUBLICATIONS

Peer-Reviewed Journal Articles

(† indicates first author)

- **Gizamba, JM**, Ruddell D, & Klausner JD. Identifying communities at elevated risk of hepatitis C infection in Los Angeles County: an ecological study using machine learning. BMC Public Health. 2026.
- † **Gizamba JM**, Ruddell D, Klausner JD. Spatial disparities in access to hepatitis C treatment providers in Los Angeles County: An enhanced two-step floating catchment area analysis. Spatial and Spatiotemporal Epidemiology. 2026.
- † **Gizamba JM**, Finch BK, Wang S, Klausner JD. Insights into the spatial epidemiology of hepatitis C infection: A systematic synthesis of area-level determinants and spatiotemporal analyses. BMC Public Health. 2025.
- Hernandez-Tamayo C, Stafylis C, Bhardwaj L, Shah RK, Becerra T, Bruce D, **Gizamba JM**, et al. Determinants of hepatitis C virus treatment completion among Los Angeles County residents. BMC Infectious Diseases. 2025.
- † **Gizamba JM**, Wilson JP, Mendenhall E, Ferguson L. A review of place-related contextual factors in syndemics research. Health & Place. 2023.
- Stafylis C, Hernandez-Tamayo C, Bhardwaj L, Shah R, Becerra T, Bruce D, Saini R, Saremi N, **Gizamba JM**, et al. Project HCV Connect: Using a county surveillance registry to link hepatitis C virus-infected residents to cure. Journal of Public Health Management and Practice. 2025.
- Bruce D, Shah R, Stafylis C, **Gizamba JM**, Hernandez-Tamayo C, Gounder P, Klausner JD; HCV Project Connect Team. Barriers to hepatitis C treatment among Los Angeles County residents. Journal of General Internal Medicine. 2025;40(13):3287–3288.
- † **Gizamba JM**, Davies J, Africa C, et al. Prevalence of obesity, hypertension, and diabetes among people living with HIV in South Africa: A systematic review and meta-analysis. BMC Infectious Diseases. 2023.
- † **Gizamba JM**, Paul L, Dlamini SK, Odayar J. Incidence and distribution of human leptospirosis in the Western Cape Province, South Africa (2010–2019): A retrospective study. Pan African Medical Journal. 2023.
- † **Gizamba JM**, Mugisha L. Leptospirosis in humans and selected animals in Sub-Saharan Africa (2014–2022): A systematic review and meta-analysis. BMC Infectious Diseases. 2023.
- † **Gizamba JM**, Davies J, Africa C, et al. Women's access to health care for non-communicable diseases in South Africa: A scoping review. F1000Research. 2022.
- Isiagi M, Biccard BM, Kinney M, Roux SL, Mdayi N, Kinnes M, Mbamalu O, **Gizamba JM**, Veitch R, Akurut E, Fadiran L. Community experiences of surgery in peri-urban Cape Town. South African Medical Journal. 2026;116(1):54–61.
- Wagaba D, **Gizamba JM**, Mugisha L. Seroprevalence of brucellosis in humans and livestock in Sub-Saharan Africa: A systematic review and meta-analysis. Systematic Reviews. 2025.
- Sente C, Onyuth H, Matovu G, Namara BG, **Gizamba JM**. Provision of travel health advice through local tourist handlers in Uganda. Travel Medicine and Infectious Disease. 2022.

DISSERTATION RESEARCH

Harnessing Spatial Thinking for Hepatitis C Elimination

- Leverages spatial and machine learning approaches to identify communities at elevated risk of hepatitis C infection
- Examines geographic accessibility to hepatitis C treatment providers using advanced spatial accessibility modeling
- Investigates the relationship between proximity to care and hepatitis C treatment uptake among individuals diagnosed with Hepatitis C

RESEARCH EXPERIENCE

Graduate Research Assistant

Spatial Science Institute, University of Southern California | May 2025 to December 2025.

Faculty Supervisor: John P Wilson, PhD, Professor

- Designed a semester-long undergraduate curriculum on spatial thinking, integrating core concepts in geospatial analysis and spatial reasoning
- Created comprehensive instructional materials, including lecture slides and an instructor's guide to support scalable course delivery
- Developed applied, project-based laboratory modules using ArcGIS Online to engage students in solving real-world geospatial problems
- Contributed to curriculum innovation efforts; course currently under academic review for potential adoption at the school level

Project Coordinator

Department of Population and Public Health Keck Medical School, University of Southern California | May 2025 to September 2025

Faculty Supervisors: Jeffrey D Klausner, MD, MPH, Professor; Chrysovalantis Stafylis, MD, MPH

- Coordinated a multisite clinical trial evaluating linezolid for early syphilis treatment across three U.S. clinics, overseeing study cross-site implementation
- Led site coordination and onboarding of study personnel to ensure protocol adherence and standardized data collection
- Managed study databases (REDCap), maintaining data integrity, quality control, and regulatory compliance
- Synthesized and presented weekly study reports on recruitment, follow-up, and treatment outcomes, collaborating with investigators to support trial monitoring

Social Determinants of Health & Place fellow

Healthy Regions & Policies Lab, University of Illinois at Urbana-Champaign | April 2025 to October 2025

Supervisors: Marynia Kolak, PhD; Darren Ruddell, PhD; Jeffrey Klausner, MD, MPH

- Selected for a competitive fellowship supported by the Robert Wood Johnson Foundation focused on advancing place-based health equity through spatial data science
- Developed HepResourceMap, an interactive geovisualization tool mapping hepatitis C care services across Los Angeles to support access and resource planning
- Presented project outcomes at the SDoH & Place Symposium (2025), Chicago

Hepatitis C Case Manager/ Researcher

Department of Population and Public Health, University of Southern California (USC) and Acute Communicable Disease Control Program, Los Angeles County Department of Public Health (LACDPH) | July 2023 to July 2024

Supervisors: Chrysovalantis Stafylis, MD, MPH; Prabhu Gounder, MD

- Contributed to the HCV Connect project, a public health program linking hepatitis C-infected individuals to care
- Conducted case investigations and primary data collection from reported HCV cases to support linkage-to-care efforts
- Analyzed spatial patterns and socioeconomic determinants of hepatitis C infection to inform population-level intervention strategies
- Co-authored peer-reviewed publications examining determinants of HCV treatment completion and program implementation outcomes

Project Coordinator

Department of Public Health and Family Medicine University of Cape Town | January 2022 to August 2022

Faculty supervisor: Lara Dugas, PhD, MPH, FTOS, Professor

- Coordinated epidemiologic research under the AXA Research Chair on the syndemic of HIV, non-communicable diseases, and the gut microbiome, including study design and protocol development
- Led data management and development of data collection systems, ensuring data quality and regulatory compliance
- Produced key research outputs, including two first-author peer-reviewed publications and conference presentations

Graduate Research Assistant

Department of Public Health and Family Medicine-University of Cape Town | September 2021 to December 2021

Faculty supervisor: Elton Mukonda, MPhil, PhD

- Contributed to research on chronic disease risk modeling in low- and middle-income countries, with a focus on diabetes and its complications
- Conducted systematic reviews and data abstraction from electronic health records, including analysis of healthcare costs associated with diabetes-related adverse events
- Performed spatial analyses to map the distribution and burden of diabetes across Africa and South Africa

COVID-19 case manager (Outbreak Response Team)

Western Cape Department of Health | March 2021 to September 2021

Supervisor: Virginia Zweigenthal, MD, PhD, Emeritus Associate Professor

- Conducted case investigations and contact tracing during peak phases of the COVID-19 pandemic, contributing to regional outbreak response efforts
- Collected and managed epidemiologic data on cases and contacts to support real-time public health surveillance

Project coordinator

College of Veterinary Medicine, Makerere University | September 2019 to January 2020

Faculty supervisor: Lawrence Mugisha, BVM, MSc. PhD, Associate Professor

- Coordinated research on antimicrobial use and resistance under the Veterinary Antimicrobial Monitoring Systems (VAMS) project, applying a One Health approach across human and animal populations
- Developed study protocols and data collection tools, and contributed to field-based data collection in hospitals
- Conducted spatial analyses of pharmaceutical access, mapping drug outlets across rural and urban areas

TEACHING EXPERIENCE

Assistant Lecturer (Instructor of Record)

Spatial Science Institute- University of Southern California | January 2026 to Present.

- Designed and taught SSCI-301: Maps and Spatial Reasoning, an undergraduate course in spatial thinking and geospatial analysis
- Developed full course curriculum, including syllabus, lectures, assignments, and assessments
- Mentored undergraduate students, fostering applied learning in spatial analysis

Graduate Teaching Assistant

Spatial Science Institute- University of Southern California | August 2023 to December 2025.

- Led laboratory and discussion sections across multiple spatial science courses, supporting instruction in geospatial analysis and spatial reasoning
- Evaluated student assignments and provided academic mentorship to undergraduate students

Graduate Teaching Assistant -Introduction to Biostatistics

Department of Public Health and Family Medicine - University of Cape Town | February 2022 to June 2022

- Mentored undergraduate students, fostering applied learning in spatial analysis
- Facilitated biostatistics tutorials for MPH students, with a focus on applied data analysis using R
- Assessed student performance and provided technical and conceptual support across course topics.

Courses taught

- *Maps and Spatial Reasoning (SSCI 301)*, Spatial Science Institute, University of Southern California — Spring 2026, Fall 2025
- *Natural Hazards and Human Populations (SSCI 214)*, Spatial Science Institute, University of Southern California — Spring 2025, Spring 2024
- *Food, Health and Place (SSCI 175)*, Spatial Science Institute, University of Southern California — Fall 2024
- *Sustainability Science in Cities (SSCI 165)*, Spatial Science Institute, University of Southern California — Fall 2023
- *Introduction to Biostatistics*, Division of Epidemiology and Biostatistics, University of Cape Town — Spring 2022

Guest lectures:

- *Spatial Analysis in Sexually Transmitted Infection Epidemiology*
NIH D43 Training Program, Keck School of Medicine (USC) & Hanoi Medical University — April 2026
 - Topics: spatial epidemiology, disease mapping, cluster detection, spatial regression
- *Exploratory Spatial Data Analysis in Diet-Related Health Outcomes*
SSCI 175: Food, Health and Place, University of Southern California — October 2024
 - Topics: ESDA and neighborhood food environments in relation to obesity and diabetes

CONFERENCE PRESENTATION

- Gizamba JM, Ruddell D, Klausner DJ. *Disparities in Spatial Access to Hepatitis C Treatment Providers in Los Angeles County.*
 - Society for Epidemiologic Research (SER), Phoenix, AZ — June 2026

- Gizamba JM, Ruddell D, Klausner DJ. *Disparities in Spatial Access to Hepatitis C Treatment Providers in Los Angeles County*.
○ American Association of Geographers (AAG) Annual Meeting, San Francisco, CA — March 2026
- Gizamba JM. *HepResourceVu: A Geovisualization Tool for Hepatitis C Service Access*.
○ SDOH & Place Symposium, University of Illinois Urbana-Champaign, Chicago, IL — September 2025
- Gizamba JM, Ruddell D, Klausner DJ. *Suboptimal Geographic Access to Hepatitis C Treatment Specialists: Urban–Rural Disparities Across Census Tracts in California*.
○ Global Hepatitis Summit (GHS), Los Angeles, CA — March 2025
- Gizamba JM. *Spatial Risk Environments of Bloodborne Infections: Identifying High-Risk Areas for HCV and HIV Using Machine Learning*.
○ SDOH & Place Symposium, Chicago, IL — 2024
- Gizamba JM, Finch B, Wang S, Klausner DJ. *Insights into the Spatial Epidemiology of Hepatitis C Infection: A Systematic Synthesis of Area-Level Determinants*.
○ World Congress of Epidemiology (WCE), Cape Town, South Africa — September 2024
- Gizamba JM. *Identifying High-Risk Areas for Untimely Hepatitis B Birth Dose in LMICs: A Spatial Epidemiological Approach*.
○ World Congress of Epidemiology (WCE), Cape Town, South Africa — September 2024
- Gizamba JM, Finch B, Wang S, Klausner DJ. *Insights into the Spatial Epidemiology of Hepatitis C Infection: A Systematic Synthesis of Area-Level Determinants*.
○ Society for Epidemiologic Research (SER) Mid-Year Virtual Meeting — 2024
- Gizamba JM, Klausner DJ. *HIV–HCV Syndemic in California: A Spatial Epidemiological Approach*.
○ American Public Health Association (APHA) Annual Meeting, Atlanta, GA — 2023
- Gizamba JM, Dugas L, Meyer L. *Effect of HIV and Antiretroviral Therapy on Resting Metabolic Rate Among Postpartum Women*.
○ Obesity Week, San Diego, CA — 2022

GRANTS, FELLOWSHIPS AND AWARDS

Fellowships and major funding

- Mastercard Foundation Scholarship (>\$50,000), fully funded Master of Public Health, 2020–2022
- University of Southern California Provost Fellowship (\$34,000), highly competitive PhD award, 2022–2023
- SDOH & Place Fellowship (\$5,000), University of Illinois Urbana-Champaign, 2025

Research & Professional Development Grants

- Graduate School Summer Research and Writing Grant (\$2,000), University of Southern California, April 2026
- Graduate Student Travel Award (\$1,500), University of Southern California, March 2026
- Spatial Sciences Institute Professional Development Grant (\$1,500), University of Southern California, 2024

Academic, Leadership, and Professional Award

- Graduate Teaching Assistant Award (\$1,000), University of Southern California, 2023–2024

PEER REVIEW AND ACADEMIC SERVICE

Reviewed for 8+ peer-reviewed journals in public health, epidemiology, and geospatial science.

Journal Reviewer

- *BMC Public Health*
- *Transactions in GIS*
- *BMC Infectious Diseases*
- *BMC Gastroenterology*
- *Scientific Reports*
- *PLoS ONE*
- *PLoS Neglected Tropical Diseases*
- *Frontiers in Global Women's Health*

Conference Abstract Reviewer

- American Public Health Association (APHA), 2024–2025
- Society for Epidemiologic Research (SER), 2024–2025
- Consortium of Universities for Global Health (CUGH), 2024

PROFESSIONAL MEMBERSHIP

- Society of Epidemiological Research (SER)
- American Public Health Association (APHA)
- International Epidemiological Association (IEA)
- American Association of Geographers (AAG)

TECHNICAL AND METHODOLOGICAL SKILLS

- **Programming & Statistical Analysis:** R
- **Geospatial Analysis:** ArcGIS Pro, ArcGIS Online
- **Quantitative Methods:** Generalized linear models, mixed-effects models, spatial regression, causal inference
- **Machine Learning:** LASSO, random forest, gradient boosting
- **Other:** Systematic reviews and meta-analysis, data visualization (R Shiny, web-based mapping)