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Infectious Disease Epidemiologist and Outbreak Response Expert.

Summary of expertise

Infectious disease epidemiologist with 9+ years of experience in integrated disease surveillance, outbreak response, and public health policy. Extensive global expertise in zoonotic diseases, One Health, and statistical/mathematical modeling to inform strategic interventions. Proven leadership in managing multi-sectoral teams and aligning programs with global frameworks. Adept at developing sustainable, localized solutions for epidemic and pandemic-prone diseases.

Key Competencies

- Integrated Disease Surveillance: Designing and implementing event-based and indicator-based surveillance systems.
- One Health Approach: Addressing human, animal, and environmental health intersections.
- Leadership: Supervising technical teams in outbreak response, capacity-building, and policy alignment.
- Guidelines and SOP Development: Creating operational frameworks for surveillance, response, and training.
- Data Analytics and Modeling: Utilizing statistical and mathematical models for outbreak prediction and health security policy.
- Global Health Partnerships: Collaboration with WHO, CDC, Ministries of Health, and USAID projects.

Leadership and management

Experience leading and supervising multidisciplinary teams for outbreak response and infectious disease surveil-lance.

- Lead teams to investigate an outbreaks of *Corynebacterium diphtheriae* and gastrointestinal illness among vulnerable and hard to reach populations.
- Managed cross-sector collaborations and provided technical support for policy decisions on malaria control in Ethiopia, COVID-19 transmission in Nigeria and yellow fever outbreaks in Brazil,
- Organized international collaborations with the US CDC, WHO, and Ministries of Health.

Professional experience

Senior Service Fellow and Epidemic Intelligence Service Officer

Jul 24-Present and Jul 22-Jun 24

CENTERS FOR DISEASE CONTROL AND PREVENTION

Seattle, WA

- Principle on providing technical assistance to US States and Territories with CDC forecasting and data analytical tools, as well as international engagement with public health agencies in Canada and the European Union.
- Led surveillance system evaluations for rabies, tuberculosis and long COVID prevalence. Strong emphasis on innovative methodologies and alternative data systems to address reporting gaps.
- Led and supervised outbreak investigations, including gastrointestinal illness, Corynebacterium diphtheriae and invasive Group A Streptococ-
- Designed SOPs and operational frameworks for disease surveillance, integrating with state and federal health policies and systems.
- · Collaborated with CDC, state and local public health, and international partners to strengthen surveillance systems for priority diseases.

Postdoctoral Researcher (Malaria, COVID-19 and Yellow Fever)

Jan 20-Jun 22

IMPERIAL COLLEGE LONDON

London, United Kingdom

- Directed epidemiological modeling for malaria, COVID-19 and yellow fever, guiding policy recommendations for Ministries of Health and global organizations.
- Designed and impemented statistical and mathematical models to predict yellow fever spillover and the potential impact of invasive malaria vectors, published in high-impact journals like Nature Communications and BMC Medicine.
- · Led development of tools for integrated vector control strategies, aligning with One Health principles.

Jan 22-Present

APPLIEDEPI Remote

Created advanced training modules in data management and analytics for outbreak response, utilized by WHO, CDC, and Ministries of Health.
Authored chapters on data analysis and epidemiology for field manuals used by public health practitioners.

Epidemiologist (COVID-10 and Yellow Fever Response)

Jan 15-Sep 15 and Jan 20-Apr 20

WORLD HEALTH ORGANIZATION

Geneva, Switzerland

- Provided analytical support for IHR-aligned surveillance during the COVID-19 pandemic in LMICs.
- · Produced operational guidelines for outbreak response, with a focus on epidemiological drivers and transmission potential.

Education

PhD in Infectious Disease Epidemiology

Jan 17-Jan 20

IMPERIAL COLLEGE LONDON

London, United Kingdom

MSc in Epidemiology

Oct 14-Oct 15

IMPERIAL COLLEGE LONDON

London, United Kingdom

BSc in Biology with Psychology

Sep 11-May 14

QUEEN MARY UNIVERSITY OF LONDON

London, United Kingdom

Select Accomplishments

- Surveillance Frameworks: Contributed to the design of global guidelines and SOPs for yellow fever disease surveillance under One Health.
- Outbreak Response: Led cross-sector teams in the investigation and control of *Corynebacterium diphtheriae*, gastrointestinal illness in vulnerable populations.
- Capacity Building: Developed and delivered virtual and in-person training for outbreak response and data analysis for policy in LMICs.

Presentations and publications _____

Presented results of outbreak investigations, scientific analysis and data analytical approaches at over a dozen international conferences, meetings and workshops.

- Authored 7 first-author publications and over 30 co-authored articles in peer-reviewed journals, including Nature Medicine and BMC Medicine.
- Topics include zoonotic disease surveillance, modeling infectious disease dynamics, and health security.

For a full list of publications, please see my **Google Scholar profile**.