Dr Arran Hamlet

Research Fellow
Imperial College London
arranh92@gmail.com | arranhamlet | arranhamlet

Summary of expertise

Infectious disease epidemiologist with 9+ years of experience in integrated disease surveillance, outbreak response, public health policy and research project management. 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

- One Health Approach: Addressing human, animal, and environmental health intersections.
- Leadership: Supervising technical teams in outbreak response, capacity-building, and policy alignment.
- Communication and Advocacy: Delivered technical insights to guide public health interventions and inform government strategies.
- Data Analytics and Modeling: Utilizing statistical and mathematical models for outbreak response and health security policy to ensure data-driven results.
- Global Health Partnerships: Provided relationship management on collaborations with diverse partners in academia, the WHO, CDC, Ministries of Health, and USAID.

Leadership and management

- Experience leading and supervising multidisciplinary teams for outbreak response and infectious disease surveillance.
- Led teams to investigate an outbreak 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

Research Fellow *Mar 25-present*
Imperial College London *London, United Kingdom*

- Developed mathematical models for the Jameel Institute's Realtime Intelligent Support for Emergencies initiative to assess vaccine-preventable outbreak risks in conflict settings.
- The project delivers critical data to help humanitarian organizations and policymakers prioritize aid in crisis settings.

Senior Service Fellow and Epidemic Intelligence Service Officer *Jul 24-Feb 25 and Jul 22-Jun 24*
Centers for Disease Control and Prevention *Seattle, WA*

- Provided technical assistance to US states and territories using CDC forecasting and data tools; coordinated collaborations with public health agencies in Canada and the European Union.
- Designed and carried out surveillance system evaluations for rabies, tuberculosis and long COVID prevalence. Emphasized innovative methods and alternative data systems to improve health security for Washington State's 8 million residents.
- Led and supervised outbreak investigations, including gastrointestinal illness, Corynebacterium diphtheriae and invasive Group A Streptococcus impacting hundreds of people.
- Designed SOPs and operational frameworks for disease surveillance, integrating with state and federal health policies and systems.
- Collaborated with dozens of 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 to guide policy recommendations for Ministries of Health in Brazil, Nigeria, Ethiopia, and global organizations such as the WHO, CDC and USAID.
- Designed and impemented statistical and mathematical models to predict yellow fever spillover and the potential impact of invasive malaria vectors, published work in high-impact journals like Nature Communications and BMC Medicine.
- Led development of tools for integrated vector control strategies for combatting malaria in Sub-Saharan Africa.

Consultant and Course Designer *Jan 22-Present*

AppliedEpi *Remote*

- Created and taught 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-19 and Yellow Fever Response) *Jan 15-Sep 15 and Jan 20-Apr 20*

World Health Organization *Remote and Geneva, Switzerland*

- Provided analytical support for IHR-aligned surveillance during the COVID-19 pandemic in LMICs.

Epidemiologist (COVID-19 and Yellow Fever Response) *Jan 15-Sep 15 and Jan 20-Apr 20*

World Health Organization *Geneva, Switzerland*

- Produced operational guidelines for outbreak response, with a focus on epidemiological drivers and transmission potential in Brazil, Angola and the Democratic Republic of the Congo.

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 designing global guidelines and SOPs for yellow fever surveillance under the One Health framework.
- Outbreak Response: Led a cross-sector team of 15 experts in the investigation and control of *Corynebacterium diphtheriae*, gastrointestinal illness in vulnerable populations.
- Capacity Building: Recieving funding, designed, managed and delivered virtual and in-person training for outbreak response and data analysis for policy in LMICs to hundreds of participants.

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**.