

Mohammed Afzal

Public Health Researcher | Epidemiologist | Medical Doctor

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Public health researcher, medical doctor, and epidemiologist with hands-on outbreak surveillance experience, including mpox and West Nile virus response at ECDC, register-based health research, large-scale data analysis in R, systematic reviews, and global public health programme delivery. Skilled in coordinating multi-country surveillance data collection, international outbreak reporting, and producing epidemiological outputs for public-facing surveillance and mapping platforms, with strong scientific writing and cross-cultural project communication.

SKILLS

- R programming (incl. spatial data analysis and mapping), SPSS, STATA
- Outbreak surveillance and risk assessment; epidemiological surveillance atlas/data platform development
- Register-based health data analysis
- Systematic review and meta-analysis
- Environmental exposure assessment
- GIS / spatial data analysis (self-taught; further training in progress)
- Project management and multi-stakeholder, multi-country coordination
- Scientific writing, technical reporting, and international project communication

WORK EXPERIENCE

Research Intern — Lund University, Sweden

September 2025 – Present

- Conducting register-based environmental epidemiology research using Swedish national health data linked with air pollution exposure data.
- Leading systematic and scoping reviews on climate, environmental exposures and health.
- Completing two further manuscripts from this research programme.

Junior Scientific Expert — European Centre for Disease Prevention and Control (ECDC), Sweden

May 2023 – April 2025

- Coordinated multi-country surveillance data collection and validation for emerging vector-borne, zoonotic, and food- and water-borne diseases (EVD/FWD) across EU/EEA member states, working with GIS specialists to produce outputs for ECDC's public surveillance atlas.
- Led seasonal West Nile virus surveillance for the EU/EEA region.
- Served as first-line responder for outbreaks of emerging and zoonotic diseases, assessing and following events on a daily basis and reporting to ECDC experts, Member States, and the weekly Communicable Disease Threats Report (CDTR).
- Acted as ECDC's point of contact for the joint ECDC-WHO mpox surveillance collaboration; drafted and published the quarterly mpox surveillance reports throughout 2025.
- Co-authored ECDC technical risk assessment and threat assessment reports, including on mpox clade I, tick-borne encephalitis, and Oropouche virus.

Health Care Assistant — Skövde Kommun, Sweden

February 2023 – May 2023

- Provided care for elderly patients focusing on physical and mental rehabilitation; supported care assessments and rehabilitation planning.

Short Term Consultant – Public Health and Immunization — UNICEF, India

August 2021 – October 2021

- Drafted Routine Immunization protocols and implementation plans during the COVID-19 pandemic; translated policy into data-driven, practical planning.

Team Lead – Surveillance — Jhpiego (an affiliate of Johns Hopkins University), India

March 2021 – July 2021

- Led national-scale digital surveillance implementation for disease detection; developed outbreak prevention strategies and intensive surveillance systems.

Senior Program Officer – Comprehensive Primary Health Care — Jhpiego, India

May 2020 – March 2021

- Supported operationalization of Primary Healthcare Centers in rural India; coordinated microplanning and field implementation with stakeholders.

State Program Officer – Digital Health/Maternal Health — Jhpiego, India

April 2018 – May 2020

- Led pilot projects for digital maternal health records and decision support tools; oversaw budgets, reporting, and evaluation for public health tech interventions.

District Program Officer – Maternal Health — Jhpiego, India

May 2017 – April 2018

- Trained and mentored clinical staff in evidence-based maternal health practices; conducted facility assessments and guided quality improvement.

Medical Officer, Department of Cardiology — Bharath Cardiovascular Institute, India

March 2012 – May 2014

- Managed clinical cardiology cases and coordinated treatment plans; member of the hospital's Infection Control Committee.

EDUCATION

Master of Science, Bioscience (Molecular and Cellular Infection Biology)

University of Skövde, Sweden | Graduated October 2022

- Dissertation: Biofilm Formation and Antibiotic Resistance in *Klebsiella pneumoniae*: A Meta-Analysis Study.

Master of Public Health (Health Policy, Economics and Finance)

Tata Institute of Social Sciences, India | Graduated May 2017

- Dissertation: A Study on Access to NCD Clinics in Kerala.

Bachelor of Medicine and Surgery (MBBS)

University of Kerala, India | Graduated February 2012

- Medical degree approved by the National Board of Health and Welfare, Sweden.

PUBLICATIONS

Peer Reviewed

- Afzal, M., Vaughan, A. M., Nannapaneni, P., et al. (2024). Continued circulation of mpox: an epidemiological and phylogenetic assessment, European Region, 2023 to 2024. *Euro Surveillance*, 29(27). DOI: 10.2807/1560-7917.ES.2024.29.27.2400330 (First author)
- Afzal, M., et al. Potential for emergence of Oropouche virus disease in Europe— currently in peer review.
- Usmanova, G., Lalchandani, K., Srivastava, A., et al. (2021). The role of digital clinical decision support tool in improving quality of intrapartum and postpartum care: experiences from two states of India. *BMC Pregnancy and Childbirth*, 21, 278. DOI: 10.1186/s12884-021-03710-y
- Two additional manuscripts on climate and environmental exposures in progress (Lund University).

Technical Reports (ECDC)

- The risk of tick-borne encephalitis virus transmission via substances of human origin. October 2024. [Link](#)
- Risk assessment for the EU/EEA of the mpox epidemic caused by monkeypox virus clade I in affected African countries. August 2024. [Link](#)
- Threat assessment brief: Oropouche virus disease cases imported to the European Union. August 2024. [Link](#)
- Quarterly ECDC-WHO joint mpox surveillance reports (2025).