Swiss TPH

Swiss Tropical and Public Health Institute
Schweizerisches Tropen- und Public Health-Institut
Institut Tropical et de Santé Publique Suisse

The Swiss Tropical and Public Health Institute (Swiss TPH) is a world-leading institute in global health with a particular focus on low- and middle-income countries. Associated with the University of Basel, Swiss TPH combines research, education and services at local, national and international levels. 900 people from 80 nations work at Swiss TPH focusing on infectious and non-communicable diseases, environment, society and health as well as health systems and interventions.

Malaria is one of the world's most important causes of mortality and morbidity, mainly affecting countries in low endemic areas. Over the last decade, substantial progress has been made globally in reducing malaria burden through increased coverage with vector control interventions and improved access to diagnosis and treatment. However, the funding has recently plateaued pushing to the forefront of the policy agenda the need to optimize deployment of interventions, based on understanding of countries' local malaria transmission and burden. In recent years, the availability and quality of malaria-relevant data have increased, encouraging countries to use evidence to make decisions, as promoted by the High Burden to High Impact initiative launched by the World Health Organization (WHO). The Swiss TPH develops and applies epidemiological, statistical and mathematical methods to evaluate and predict malaria transmission and the impact of interventions in order to provide support National Malaria Control Programs (NMCPs) and their partners in their evidence-based decision-making processes.

Infectious Disease Modeler

The *Department of Epidemiology and Public Health (EPH)*, within the *Swiss Tropical and Public Health Institute*, is seeking a highly motivated disease modeler with strong analytical skills. The modeler will work within the *Analytics and Intervention Modelling* group to help design evidence-based strategic plans by providing analytical evidence and support execution of high-impact programs to ensure countries reduce their malaria burden.

In this position the modeler will support the technical work for the methodological development and application of the modelling activities aimed at providing support to NMCPs in endemic countries as well as to their partners including donors and NGOs.

Your responsibilities include:

- Apply statistical and mathematical modelling to evaluate the impact of malaria interventions at national and sub-national levels in multiple high-burden countries. Specifically, the modelling outputs will support:

1. Strategic and operational questions on implementation of malaria control interventions at subnational level by National Malaria Control Programs
2. Strategic decisions by major donors, including the Bill and Melinda Gates Foundation, the Global Fund to Fight AIDS, Tuberculosis and Malaria as well as the President Malaria Initiative

- Contribute to iterative methodological development to support modelling and statistical need within the team and with other external collaborators
- Collaborate with a technical team of disease modelers and epidemiologists toward project deliverables
- Synthetize and communicate modelling outputs to diverse policy audiences and disseminate findings through high-quality presentations, reports and publications
- Contribute to capacity strengthening by developing and delivering high-quality workshops, training and teaching to diverse policy audiences and students

You should have the following experiences and skills:

Essential Skills

- PhD in epidemiology, ecology, biostatistics, biomathematics, bioinformatics, computational biology or any related discipline with strong quantitative component
- 3+ years of experience related to the above responsibilities with increasing levels of responsibility
- Demonstrated experience in disease modelling (preferably infectious diseases and particularly malaria)
- Strong experience with programming in R and in cluster computing environments.
- Strong problem-solving skills and ability to improvise with a variety of quantitative approaches to solve complex problems despite unreliable data
- Strong inter-personal skills and ability to collaborate with people from varied backgrounds and disseminate results at different technical levels
- Ability to work in teams, to adapt to new challenges and operate as part of a multicultural team
- Exceptional written and oral communication skills in English. French, Portuguese or Spanish is a plus.
- Relevant working experience in low- and middle-income countries
- Willingness to travel

Desired Skills

- Experience with fitting, calibration and sensitivity analyses methods for dynamical models e.g. Bayesian inference, optimization routine, surrogate models or others
- Experience with geospatial analysis
- Experience in working with and communicating to government officials and other partners, including academics, donors, Ministries of Health and other relevant stakeholders
- Demonstrated experience in developing/applying vector and/or health system dynamics models
- Experience working in fast-paced, output-oriented environments
- Idealism, humility, and desire to see quantitative approaches make a difference in the world
- Good intuition for the aesthetics and technical aspects of information visualization

Applicants with previous expertise in infectious disease epidemiology and experience with providing analytical support to health authorities are highly encouraged to apply.

Please submit your application online via the link https://jobs.swisstph.ch/Jobs/All with:
CV, Motivational letter, diplomas, names and contact information (email or phone) of 3 references

Please note that we can only accept applications via our online recruiting tool: Applications via e-mail or external recruiter will not be considered.

The position will be open until 31st January 2023. We encourage applicants to submit their application as soon as possible.

Contact: For additional information about the position contact Emilie Pothin, emilie.pothin@swisstph.ch

Job Profile:
Start Date: Upon agreement
Location: Allschwil / Basel, Switzerland
Duration: Initial two years with opportunities for extensions
Percentage: 100%