Request for Applications – Mathematical Modelling of Rabies Transmission & Impact

Background

Rabies has been identified as a priority zoonosis for action and an entry point for global one health efforts. However, differences in operating incentives and perspectives among the animal, environment and human health sectors prevent holistic analysis of disease conditions and the effectiveness of their solutions.

A major barrier to the One Health approach being used to prevent and control rabies is due to the opaqueness of costs and benefits accrued in all sectors from the implementation of an intervention in one sector. Until now, economic evaluations of interventions to combat zoonotic diseases incorporate costs from multiple sectors however only analyze outcomes from one sector.

The aim of our project is to try to overcome the difference in opinion between sectors by building an integrated model of the transmission of rabies and its interventions across multiple species. We plan to use this model to estimate cost effectiveness of different rabies control interventions from the perspectives of different sectors.

Requirement

We require an infectious disease modeller who has the necessary skills to develop, build and simulate a novel model for rabies. Previous work regarding a novel model has already been initiated by the project team, and we now require a candidate to refine and improve upon it and fit secondary data to the model. This position would be in the form of a three-month consultancy assignment payable, starting in February (subject to grant of work permit) and is likely to involve some travel to the project office in Delhi NCR, India.

Key Deliverables

We seek an infectious disease modeller to work within the Roadmap to Combat Zoonosis Initiative based out of the Public Health Foundation of India. The candidate will have the following deliverables:

- Review and build an infectious disease model as per the requirements of the respective project.
- Contribute to the parameterisation of models and implement model fitting by analysis of appropriate data and critical review of relevant literature.
- Develop technical reports based upon findings
- Assist study investigators in reporting the findings in high impact journals.

Eligibility

The following criteria are essential for the application of this position:

- PhD or Master's degree with equivalent experience in the design, building, implementation and critical appraisal of infectious disease models.
- Publication record of mathematical infectious disease modelling.

- Experience and knowledge of the epidemiology, prevention and control of communicable disease.
- Experience of using Berkeley Madonna, R and other appropriate software tools.
- Knowledge of health economics and economic evaluations would be desirable but not essential.
- Knowledge of rabies would be desirable but not essential.

How to apply

Applications, must be sent to recruit@phfi.org by 15th February 2015. We will be shortlisting applicants on a rolling basis and will appreciate early applications. Applications must include:

- Cover Letter summarising the suitability of your application to the assignment
- Updated CV

Informal enquiries are welcome at syed.abbas@phfi.org.