



LONDON
SCHOOL of
HYGIENE
& TROPICAL
MEDICINE



Title of PhD project	Combining novel data streams to forecast acute febrile illness in the Dominican Republic	
Supervisor	Dr Adam Kucharski	LSHTM
Co-Supervisor	Dr Rachel Lowe	LSHTM
Co-Supervisor	Dr Sebastian Funk	LSHTM
Brief description of project	Acute febrile illness causes substantial burden in Caribbean, but the causes and predictability of outbreaks are not well understood. This project will combine mathematical and statistical models with a range of novel data sources – including surveillance data, community serological surveys, large-scale human mobility data and environmental factors – to investigate the role of influenza and dengue in driving acute febrile illness outbreaks in Dominican Republic, and develop better methods for forecasting such diseases.	
Skills we expect a student to develop/acquire whilst pursuing this project	Modelling of infectious diseases, Bayesian inference, as well as quantitative analysis of large data sets, evidence synthesis, and forecasting techniques.	
Particular <u>prior</u> educational requirements for a student undertaking this project	The project will require some prior knowledge of epidemiology and statistics. Experience of programming, for example with R, and of using mathematical and/or statistical models would also be beneficial.	