

## **Forecasting infectious diseases from seasonal climate forecasting systems.**

*Andy Morse, University of Liverpool*

### **Abstract**

Initial condition forecasts are produced routinely by weather forecasting centres with integration times from tens of hours to six months and beyond. The routine uptake and processing of these data sets is normally limited to a small group of specialist users. The use for health is rarely exploited beyond warning for heat waves and cold snaps.

Malaria forecasts for regions in Africa will be presented through driving a daily time step malaria model, the Liverpool Malaria Model (LMM), with ECMWF's System4 seasonal ensemble prediction system. It will be shown that for regions in Africa, skilful malaria forecasts can be made with lead times of 5 to 7 months. By developing skilful models at seasonal timescales, we have taken and used the LMM at climate change time scales with an ensemble of global and regional climate models.