

Challenges in making information impactful

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Predicting diarrheal disease in Mozambique

The climate is already changing...



Up 1.5°–2°C across the country, 1961–2010

Projected climate changes



Up 1°C by 2037; Up 3°–5°C by 2100
More days with temperatures above 35°C
Fewer nights below 25°C



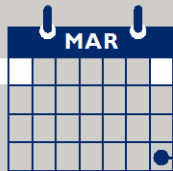
Increased variability, with wetter and dryer years



More cyclones, flooding and drought

Diarrheal Disease Patterns Now

When the hottest day of the week increases by 1°C... diarrheal diseases increase by 1.13% that week.



When there is at least 1mm of rainfall on any given day of the week...

4 weeks later

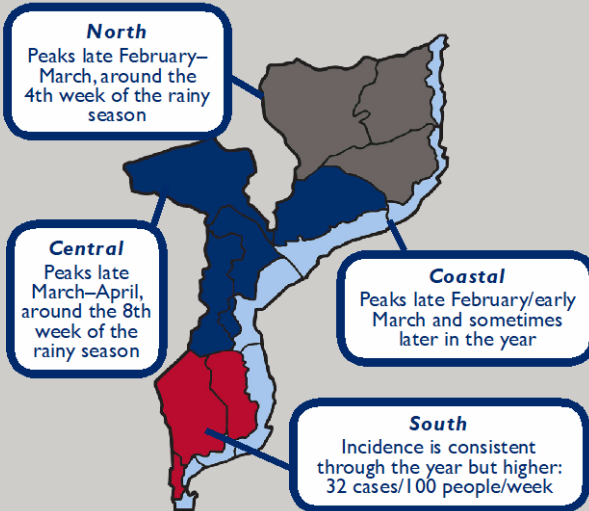
Diarrheal disease increases by 1.04%

What does this mean for the future?

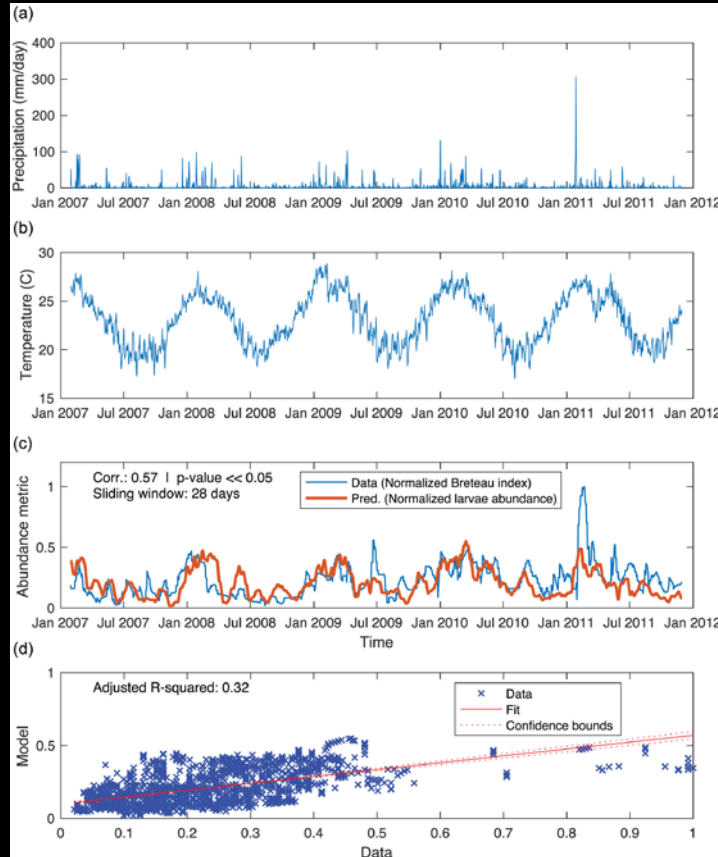
Increases in minimum temperatures and more wet days leads to increase in diarrheal disease

Diarrheal Disease and the Rainy Season

Historically, reported cases peak in the rainy season, with 15–20 cases/per 100 people/week, except in the South, where incidence is higher. Incidence is lowest in the cool, dry months of June, July and August.



Testing predictive models: Dengue in Réunion



Reference

DiSera et al., The Mosquito, the Virus, the Climate: An Unforeseen Réunion in 2018. *GeoHealth* 4 (8).

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