

# Climate change and infectious disease

Now is the time for bold transdisciplinary action

Funding for training, research, and practice related to climate change and infectious disease has been limited, and the global response has largely been characterized by skepticism and watchful inaction. This graphic introduces six strategies for intervening in the complex network of connections around climate change and infectious disease

## Health sector emissions mitigation

The health sector is responsible for over 4% of global emissions, more than aviation or shipping. Reducing emissions should be a fundamental priority

## Increased funding for climate and health

Nations must invest in appropriate strategies to further elucidate linkages and address climate related health risks

Integrated surveillance and control	Community education and social mobilization	Interventions in displaced populations	Novel diagnostics
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## Recognize and frame the problem with a transdisciplinary lens

The health of humans, plants, and animals is inextricably linked. For this reason, multiple sectors and disciplines must come together to improve health and wellbeing, and new systems of collaboration integrated into ongoing health assessments

More international travel and trade  
Increased global connectivity

## Decision support analytics

Predictive modeling and early warning systems that integrate seasonal climate forecasts have the potential to assist decision makers in understanding where infections will emerge or spread, or when future epidemics might occur

## Enhanced use of environmental information

Integrating Earth observations and local environmental observations into burden of disease estimates and disease surveillance activities could allow for the early detection of anomalies and facilitate preemptive action

## KNOWLEDGE GAPS



### 1. Location, location

Some areas that have experienced significant shifts in the climate, including parts of Africa and the Middle East, are underrepresented in the evidence base, which limits conclusions about climatic influences in certain regions



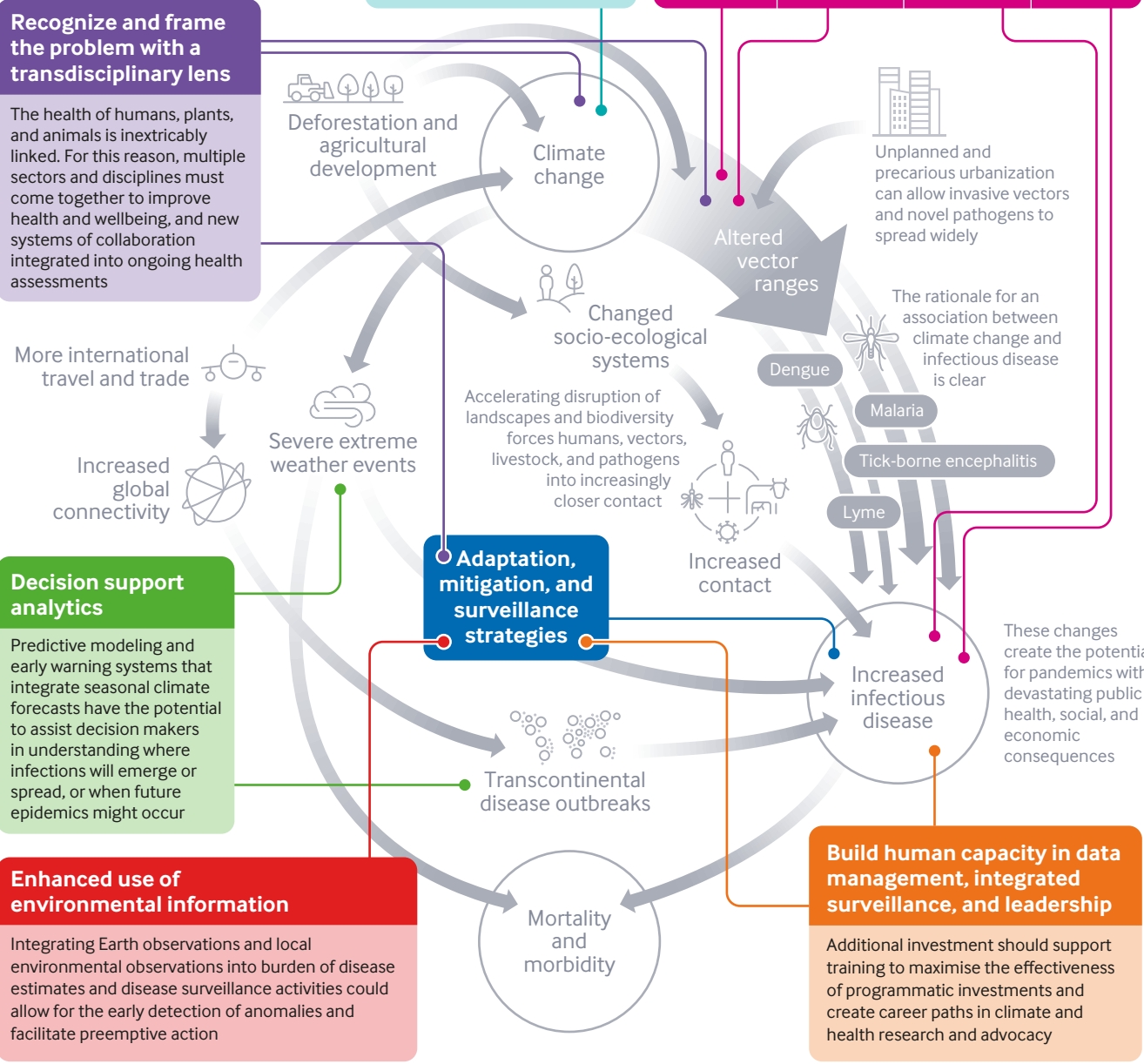
### 2. Annual trends

There is limited research on the role of interannual climate variability, which is important for many infectious diseases with a marked seasonal component



### 3. Extreme events

Insufficient attention has been paid to the impacts of increasingly frequent and severe extreme weather events, which can influence the timing and intensity of disease outbreaks and hinder response efforts



These changes create the potential for pandemics with devastating public health, social, and economic consequences

## Build human capacity in data management, integrated surveillance, and leadership

Additional investment should support training to maximise the effectiveness of programmatic investments and create career paths in climate and health research and advocacy

