the**bmj** Visual summary 🀠

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 emmisions 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

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

\$1000

Severe extreme

weather events

Deforestation and agricultural Climate development

change

Changed socio-ecological systems

Accelerating disruption of landscapes and biodiversity forces humans, vectors, livestock, and pathogens into increasingly closer contact

> Increased contact

Increased infectious disease

precarious urbanization can allow invasive vectors and novel pathogens to spread widely

Unplanned and

The rationale for an association between climate change and infectious disease is clear

These changes

create the potential

for pandemics with

devastating public

health, social, and

consequences

economic

Decision support analytics

More international

travel and trade ਨ

Increased

connectivity

global

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

Transcontinental disease outbreaks

Mortality

and

morbidity

Adaptation.

mitigation, and

surveillance

strategies @

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

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

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

血 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

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KNOWLEDGE

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