National Institute of Environmental Health Sciences

The ecology of climate change and infectious diseases

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Abstract:

The projected global increase in the distribution and prevalence of infectious diseases with climate change suggests a pending societal crisis. The subject is increasingly attracting the attention of health professionals and climate-change scientists, particularly with respect to malaria and other vector-transmitted human diseases. The result has been the emergence of a crisis discipline, reminiscent of the early phases of conservation biology. Latitudinal, altitudinal, seasonal, and interannual associations between climate and disease along with historical and experimental evidence suggest that climate, along with many other factors, can affect infectious diseases in a nonlinear fashion. However, although the globe is significantly warmer than it was a century ago, there is little evidence that climate change has already favored infectious diseases. While initial projections suggested dramatic future increases in the geographic range of infectious diseases, recent models predict range shifts in disease distributions, with little net increase in area. Many factors can affect infectious disease, and some may overshadow the effects of climate.

Source: Ask your librarian to help locate this item.

Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Temperature

Geographic Feature:

resource focuses on specific type of geography

None or Unspecified

Geographic Location:

resource focuses on specific location

Global or Unspecified

Health Impact:

specification of health effect or disease related to climate change exposure

Infectious Disease

Infectious Disease: Foodborne/Waterborne Disease, Vectorborne Disease

Foodborne/Waterborne Disease: Schistosomiasis

Vectorborne Disease: Mosquito-borne Disease

Mosquito-borne Disease: Malaria, Yellow Fever

Resource Type:

format or standard characteristic of resource

Review

Timescale:

time period studied

Time Scale Unspecified