



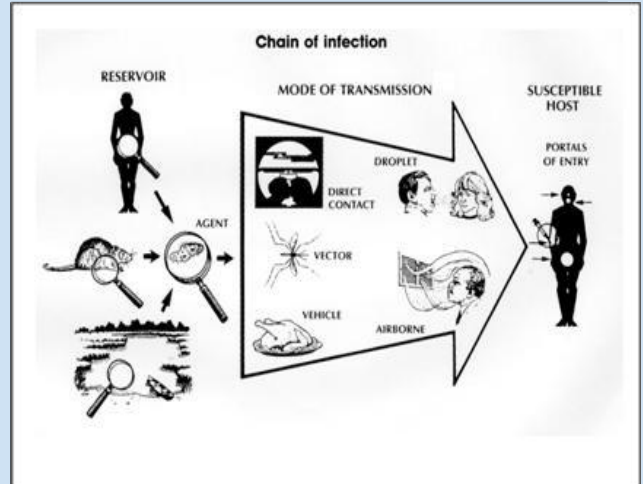
Impacts of Climate Change: Spread Of Communicable Diseases

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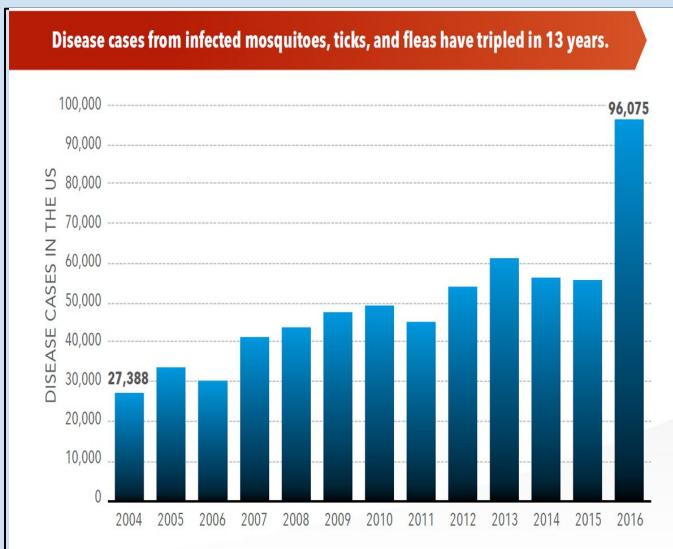


Introduction

- Climate change is the change in the average weather of a region over multiple decades.
- Climate change is often recognized by global warming, changes in precipitation patterns, increasing storm intensity, and sea level rise
- Communicable diseases are diseases spread from one person to another
- Some of the most well known communicable diseases include the flu, tuberculosis, zika, hepatitis, and HIV
- The transmission and spread of communicable diseases are heightened by climate change
- Changes in precipitation, temperature, and sun exposure all impact the transmission and longevity of disease pathogens and hosts by influencing their environment and presence of competitors.
- These changes alter the frequency and intensity of communicable diseases



This chart outlines the different ways that communicable diseases can be spread. (From cdc.gov)

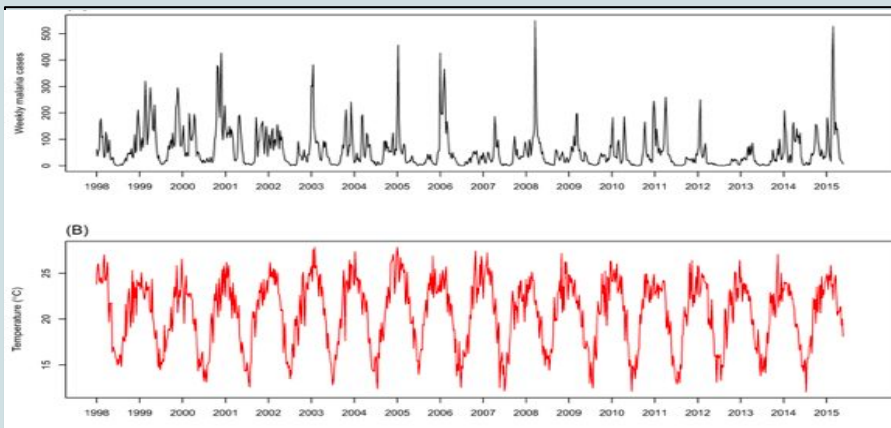


from cdc.gov

How Current Global Change is Making This Worse

- Diseases spread by a vector (mosquitos, ticks, etc), or vector borne diseases, are spread more easily now than before
- This is because habitat destruction and climate change are pushing vectors further into human territory
- Water and foodborne diseases like cholera are also on the rise due to rising sea levels and increased flooding, spreading contaminants and germs
- This also provides breeding grounds for vectors in cities
- Dangerous microbes that are found in warmer waters (like brain eating amoeba) are a large risk due to rising temperatures



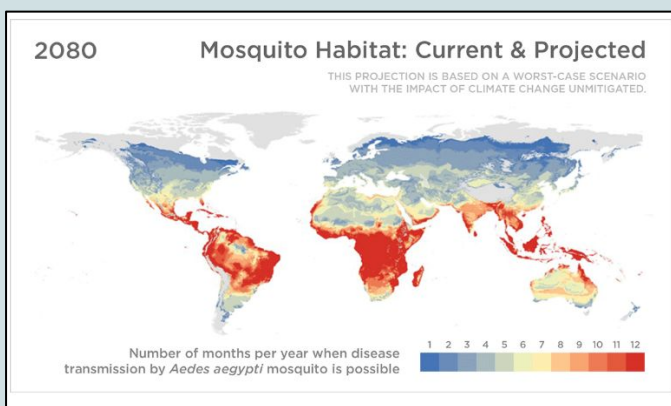


Malaria cases in South Africa related to temperature inclines and declines.

From nature.com

How will the spread of disease change in the future?

- Climate change will continue to increase temperature and precipitation levels, which will facilitate vector and pathogen reproduction.
- Increased precipitation will create more breeding grounds and increased temperature will create a more hospitable environment.
- As a result, many diseases will spread regionally and increase in severity.

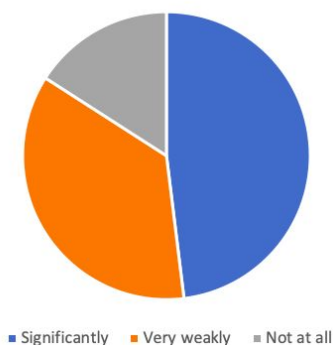


How will this change impact humans &/ or wildlife in the near future?

- People could become more vulnerable to catching diseases since warm temperatures lead to worse air quality which results in more respiratory, cardiovascular and allergy issues
- Warmer winters can impact migration patterns of animals who can be hosts of diseases
 - Mosquitos and ticks could become active earlier in the year
- Increase of human and animal interactions as deforestation and habitat destruction increases

Public perception of the amount of influence climate change has on the spread of communicable diseases.

Spread of Communicable Diseases



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