Human infectious diseases

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ABSTRACT:

Climatic factors, especially temperature, precipitation, and humidity play an important role in disease transmission. As the Arctic changes at an unprecedented rate due to climate change, understanding how climatic factors and climate change affect infectious disease rates is important for minimizing human and economic costs. The purpose of this systematic review was to compile recent studies in the field and compare the results to a previously published review. English language searches were conducted in PubMed, ScienceDirect, Scopus, and PLOS One. Russian language searches were conducted in the Scientific Electronic Library “eLibrary.ru”. This systematic review yielded 22 articles (51%) published in English and 21 articles (49%) published in Russian since 2012. Articles about zoonotic and vector-borne diseases accounted for 67% (n=29) of the review. Tick-borne diseases, tularemia, anthrax, and vibriosis were the most researched diseases likely to be impacted by climatic factors in the Arctic. Increased temperature and precipitation are predicted to have the greatest impact on infectious diseases in the Arctic.