

Title: *The Global Spread of Infectious Diseases by the Mass Movement of Goods and People in an Era of Climate Change*

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**Background:** Since 1975, the earth's surface has been warming at a rate of 0.74°C. every decade. The World Health Organization has now identified the major health consequences of global warming as the vulnerability of food supplies, the spread of infectious diseases (IDs) by commerce, and the importation of new animal vectors of IDs.

**Methods:** In order to recommend new strategies for the prevention and control of IDs spread by the mass movement of animals, goods, and people, Internet search engines were used to match causative pathogens with their most common reservoir hosts and methods of transportation and transmission.

**Results:** The most common animal hosts of IDs included rodents and insects imported into new ecosystems on container ships and aircraft. The most common human hosts of IDs were patients with airborne diseases, most often tuberculosis and influenza, traveling aboard aircraft. The most common foodborne ID outbreaks included hepatitis A and acute *E. coli* gastroenteritis following consumption of air or ground-imported produce and acute norovirus gastroenteritis aboard cruise ships.

**Conclusions:** Free trade, economic globalization, and the ease and speed of air and sea travel have offered several unique opportunities to genetically adaptable pathogens in an era of climate change including new pathogen transportation systems, warming and welcoming ecosystems, new animal vectors of IDs, and more susceptible human hosts in close proximity. Governments have a responsibility to recognize and control the global spread of IDs, to assure safe labor and trade practices, and to produce the safest foods and goods for export.

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