

Chapter 20 Section 2 Notes

The Environment's Role in Disease

- host – organism in or on which a disease causing organism lives
- pathogen – organism that causes disease
- environment is an important factor in the spread of cholera and dysentery because water provides a habitat in which the pathogens breed
- soil erosion leads to the spread of parasites such as hookworm because the contaminated soil is moved from one location to another.

Infectious Disease – most are transmitted through water

- Cholera – is a disease indirectly caused by pollution
- Malaria – in order for people to get malaria, they must be bitten by a mosquito vector
 - climate change may increase the areas where malaria occurs

Environmental Change and Disease

- Antibiotic Resistance – people's actions cause some disease-causing bacteria to become resistant to antibiotics
- Vector-borne Diseases
 - vector – transmits a disease-causing organism to people
- Emerging Viruses – previously unknown cause of disease
 - Human immunodeficiency virus (HIV) is considered an emerging virus because it was previously unknown
 - West Nile
 - Zika
 - hanta virus
 - Ebola
- Cross-Species Transfers – movement from one kind of organism to another
 - destroying habitats may result in more pathogens making a cross-species transfer to humans
- Examples of Cross-Species Transfers
 - Mad cow disease