

Gastrointestinal Infections and Diarrheal Diseases

Diarrheal Diseases

- Estimated 2 billion cases globally per year
 - Much higher prevalence in developing countries
 - Often self-limiting in developed countries
- Greatest impact seen in children
 - Major (leading?) cause of death in <5 year olds (□1.5 million per year)
 - Leading cause of malnutrition in <5 year olds
- Vast majority caused by infectious agents
 - (food poisoning includes non-infectious toxins)
 - Includes viruses, bacteria, protozoa, and helminthes
 - Ingestion of food or water contaminated with pathogen or toxin produced by pathogen

Common Transmission Mechanisms

- Fecal-oral transmission
 - Infectious stage of pathogen excreted in feces
 - Ingestion of contaminated food or water
 - Direct or indirect (eg, soil transmission) contact
- Food-borne transmission
 - Contamination of food with pathogen (ie, fecal-oral transmission)
 - Bacterial growth in food (\pm toxin production)
- Water-borne transmission
 - Infectious agents associated with water