

Assessing Risk from Environmental Exposure to Waterborne Pathogens: Use of Dynamic, Population-Based Analytical Methods and Models

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This lecture is based on lecture material prepared by Prof. Joe Eisenberg, formerly of the University of California-Berkeley and now at the University of Michigan

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Overview

- ❖ Role of water in disease burden
 - Water as a route of disease transmission
- ❖ Methods of risk estimation
 - Direct: intervention trials
 - Indirect: risk assessment
- ❖ Population-level risks
 - Example: the Milwaukee outbreak

Importance of Waterborne Pathogens

Domestic: U.S. interest in water quality

- 1993 *Cryptosporidium* outbreak
- Increasing number of disease outbreaks associated with water
- Congressional mandates for water quality
 - (Safe Drinking Water Act)
- Emphasis on risk assessment and regulation