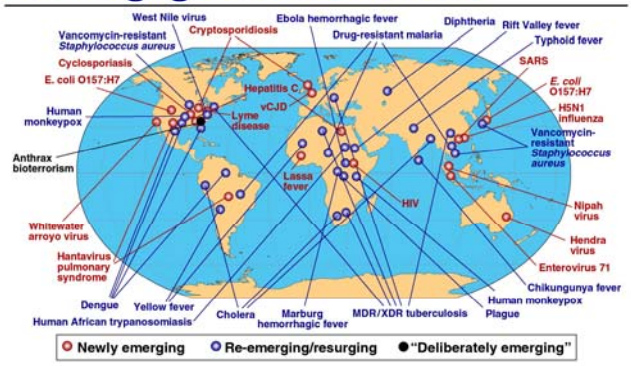
Global Examples of Emerging and Re-Emerging Infectious Diseases



Integrated NIH Research on Emerging Public Health Threats

Naturally Occurring Infectious Disease Threats ⇄ **Bioterror Threats**

Expansion of Research Capacity

- Biocontainment Laboratories
- Regional Centers of Excellence for Biodefense and Emerging Infectious Diseases
- Centers for Medical Countermeasures Against Radiation
- Centers of Excellence for Medical Chemical Countermeasures

Selected NIH Accomplishments in Biodefense – Threat-Specific

- Vaccines: smallpox; hemorrhagic fevers; anthrax
- Therapeutics: smallpox (ST-246); Ebola (RNAi); anthrax (antitoxins)
- Diagnostics: influenza (MChip); detection of radiation exposure

Selected NIH Accomplishments in Biodefense – Crosscutting

- Genomic sequencing
- Therapeutic screening
- Host-pathogen interactions

Role of NIH in Countermeasure Development

*Biomedical Advanced Research and Development Authority; established by the Pandemic and All-Hazards Preparedness Act of 2006