

National Center for Zoonotic, Vector-Borne, and Enteric Diseases (NCZVED)

The National Center for Zoonotic, Vector-Borne, and Enteric Diseases (NCZVED) is a new National Center at the Centers for Disease Control and Prevention (CDC) responsible for the high-profile public health responses to microbial threats. NCZVED provides leadership, expertise, and services in laboratory and epidemiological science, bioterrorism preparedness, applied research, disease surveillance, and outbreak response for infectious diseases.

This new Center brings together some of the oldest core infectious disease components of the agency. Many of these diseases are either transmitted by animals (zoonotic), spread by insects (vector-borne), or they cause diarrhea (enteric); many pose risks for increased and widespread infections; and some, such as anthrax, represent threats from deliberate dissemination. NCZVED combines these functions in a novel multidisciplinary strategy to understand, prevent, control, and, where possible, eliminate infectious diseases within a larger ecologic context that examines the interaction of humans, animals, and the environment.

Mission. The mission of NCZVED is to execute a multidisciplinary strategy to prevent, control, and, where possible, eliminate infectious diseases within a larger ecological context that includes humans, animals, and plants interacting in a complex, ever-changing natural environment.

Divisions. NCZVED is comprised of four divisions:

▶ **Division of Vector-borne Infectious Diseases (DVBID)**

- Mosquito-borne diseases such as West Nile virus, yellow fever, numerous encephalitis viruses, dengue, and chikungunya, which continues to spread to new countries and poses a threat for an outbreak in the United States.
- Tick-borne diseases such as Lyme disease, the most common vector-borne disease in the United States.
- Bioterrorism agents such as plague, tularemia, and alphaviruses.

▶ **Division of Viral and Rickettsial Diseases (DVRD)**

- Hemorrhagic fevers and viral special pathogens such as Ebola and Rift Valley fever.
- Other viral zoonotic diseases such as poxviruses, including smallpox, hantavirus, and rabies.
- Rickettsial diseases such as Rocky Mountain spotted fever and Q fever.
- Prion diseases such as the human variant of mad cow disease.

▶ **Division of Parasitic Diseases (DPD)**

- Guinea worm global eradication program.
- Programs that support the President's Malaria Initiative and neglected tropical diseases initiative.
- Consultation and drugs for rare tropical diseases.
- Healthy water programs, including safe recreational and drinking water.

▶ **Division of Foodborne, Bacterial, and Mycotic Diseases (DFBMD)**

- Foodborne diseases such as botulism and those caused by Salmonella and *E. coli* O157.
- Bacterial zoonotic diseases such as anthrax, brucellosis, and leptospirosis.
- Fungal infections such as Valley Fever.
- FoodNet (the foodborne disease active surveillance network) and PulseNet (the national molecular subtyping network for foodborne disease surveillance).
- Safe Water System -- making water safe in the developing world through inexpensive technologies.

"We are in a new era of emerging and reemerging zoonotic diseases. Episodes of emerging zoonoses are increasingly recognized around the world and the confluence of people, animals and animal products today is unprecedented. Our center recognizes the inextricable link between human, animals, and the environment"

*Dr. Lonnie King
Director, NCZVED*