Protecting the health of the Nation’s livestock and poultry industries is the responsibility of APHIS’ Veterinary Services (VS). The Center for Epidemiology and Animal Health (CEAH) is a world-renowned science center within VS. Our Center serves under the umbrella of the Science, Technology, and Analysis Services (STAS) unit. Our mission is to promote and safeguard U.S. agriculture by providing timely and accurate information and analysis about animal health and veterinary public health.

At CEAH, we explore animal health and related agricultural issues and provide scientifically sound and statistically valid information, analyses, tools, and methodologies to decisionmakers in government and industry. In this role, CEAH helps APHIS strengthen animal health infrastructures both nationally and internationally through surveillance, monitoring, risk analysis, spacial epidemiology, and modeling.

Our experts also provide training on epidemiological techniques to animal health professionals, domestic and international.

CEAH is a World Organization for Animal Health (OIE) Collaborating Center for Animal Disease Surveillance, Risk Analysis, and Epidemiological Modeling, and partners with OIE and member countries to improve international disease surveillance capabilities and analytic methods supporting trade decisions.

Our Team... has over 75 highly skilled professionals from diverse disciplines. Our offices are centrally located at the Natural Resources Research Center in Fort Collins, Colorado, USA.

Information Management and Analytic Support

Finding answers to animal health issues

Our experts support decision-making on animal health issues by using innovative tools such as geographic positioning services, mobile information devices, and sophisticated software applications. Using a broad range of specialized expertise, we quickly and efficiently:

♦ generate maps and geospatial reports
♦ provide geospatial support and analytic functions for internal and external customers and
♦ perform geospatial methods development and training.

In addition, we maintain data from major information technology systems for VS animal disease certification, control, and surveillance programs; standardize data management practices; and deliver products and services to support VS decisions and operations.
Monitoring and Modeling

Monitoring animal health through national studies
When questions arise about the health and management of livestock, poultry, and farmed aquatic animals in the United States, our Center often provides the answers. Through periodic national studies of these animals, we provide stakeholders with valuable information on disease occurrence and exposure to disease agents, management practices, and productivity.

Using epidemiological analysis, we provide up-to-date and trend information needed to monitor animal health, support trade decisions, assess research and product development needs, answer questions for consumers, and set policy.

Developing animal disease models
CEAH experts provide leadership in developing applied animal disease models and modeling tools for use in simulating animal disease outbreaks, control options, and resource requirements for multiple species.

Risk Identification and Risk Assessment
Identifying the likelihood and consequences of events
Our teams examine all aspects of environmental factors affecting animal health and veterinary public health. We analyze present, future, and emerging threats to animal health to estimate the likelihood of a damaging event and resulting consequences, and determine potential pathways of the disease. Using data and information from multiple sources, we provide epidemiological, economic, environmental, and other assessments of animal health issues.

We analyze animal health programs and estimate the future prevalence of diseases under alternative scenarios, and quickly conduct comprehensive risk analyses. After identifying an animal or veterinary public health risk and assessing the threat, we communicate this information to other health professionals, stakeholders, and decisionmakers.

Surveillance, Design, and Analysis
Enhancing the efficiency and cost-effectiveness of animal surveillance
CEAH helps protect the health of U.S. livestock resources by designing and evaluating comprehensive and integrated surveillance systems, and analyzing and reporting surveillance data. A well-designed national surveillance system provides critical information for international trade and plays a fundamental role in the national agricultural economy.

Our Center serves as the focal point in VS for designing and evaluating animal health surveillance systems, and for compiling, analyzing, and communicating surveillance information for action planning and decisionmaking, both domestic and international. We develop and evaluate analytic tools, methods, and strategies to enhance surveillance systems, and provide rapid technical responses to urgent information requests related to epidemiology and surveillance. CEAH experts also provide surveillance training and develop surveillance standards for U.S. and international use.