Center for Emerging Issues becomes the Center for Animal Health Information and Analysis

By Tracey Lynn, Center for Animal Health Information and Analysis Director

The Center for Emerging Issues, one of three centers within Veterinary Services - Centers for Epidemiology and Animal Health (CEAH), was formed in the early 1990s to address emerging animal health issues, such as bovine spongiform encephalopathy (BSE). Early projects included qualitative and quantitative risk analysis studies about BSE, an evaluation of issues and ramifications of *E. coli* 0157:H7, and a look at emerging factors and forces affecting the bovine tuberculosis program. Over the next decade, the center grew to include a business intelligence function, as well as a group dedicated to spatial epidemiology methods and applications.

In October 2007, these teams were augmented by the addition of the Risk Analysis Team as part of the realignment of CEAH (http://nsu.aphis.usda.gov/outlook/issue16_nov07/index.htm). With this addition, the work of CEI became more clearly focused on the early identification, evaluation, and analysis of risk and risk factors to strengthen capacity for global animal disease prevention, detection, and response.

Recently, CEI finalized a year-long assessment of its mission and function, culminating in a decision to change its name to the Center for Animal Health Information and Analysis (CAHIA). The new name captures the group's mission, which has expanded from early identification and initial analysis of emerging issues to encompass a more holistic and comprehensive identification and analysis function, spanning the following areas:

- All-source intelligence and issue assessment;
- Early hazard identification and initial impact analysis;
- Forecasting and trend analysis;
- Risk analysis and epidemiologic modeling of disease spread;
- The use of geospatial methods to enhance animal health by assessing ecology of disease and population factors, habitat characteristics and geographic distributions of potentially invasive species; and

- Recommendations for targeting of surveillance and boundaries for regulatory zones and regions.

CAHIA is organized into three teams:

The Global Intelligence and Forecasting (GIF) team focuses on improving global animal health through all-source intelligence, communication, and leading edge thinking, including:

- All-source intelligence, early hazard identification, and initial impact analysis;
- Emerging disease analysis methods and tools;
- Trend analysis – diseases and issues;
- Forecasting and scenario planning; and
- Business tool development.

The Risk Analysis Team leads CEAH in the identification and development of epidemiologic and economic methods and approaches for estimating risks and consequences of animal outbreaks, and assists disease control programs in measuring impacts of program and policy changes to animal health, consumers and producers. This team's expertise includes:

- Qualitative and quantitative risk assessments and mitigation analyses;
- Risk communication;
- Applying regionalization and proactive risk assessment concepts to domestic disease control efforts;
- Epidemiologic and economic modeling to inform and enhance emergency preparedness and response;
- Consequence assessment (including compensation and indemnity) and cost-benefit analyses; and
- Developing new methods for applying available data to assess risks important to VS programs.

The Risk Analysis Team also supports CEAH's activities as an OIE Collaborating Center for Surveillance and Risk Analysis.

The Spatial Epidemiology Team provides expertise to VS in the use of geospatial methods to enhance animal health by:

- Developing geospatial infrastructure methods to collect and analyze spatial data on farm animal locations and points of livestock concentration;
- Providing professional mapping services upon request to VS staff members;
- Using remote sensing methods to identify high risk environmental conditions, and to guide emergency personnel in responding to disease hazards or natural disasters involving livestock;
- Conducting scientific studies involving the ecology of disease pathogens within populations of farm animals, wildlife, and arthropod or rodent vectors;
- Assessing the ecology of vectors and host animals in natural environments, including analyzing habitat characteristics and geographic distributions of exotic species of organisms that are potentially invasive to U.S. animal agriculture;
- Developing new geospatial methods to track and trace animal movements to enhance investigation and control of disease outbreaks; and
- Recommending optimal sizes, shapes, and placements of regulatory zones and regions as disease mitigation measures.

While the majority of our work assessing mission and function is complete, CAHIA staff members are committed to continual self-assessment and improvement. Recently, we sent out a customer survey in order to obtain feedback on how we might improve our products to meet informational needs, and we are currently revamping our Web site to improve dissemination of key products and information. We look forward to using the feedback to enhance our programs. You may contact the CAHIA by phone at (970)494-7200 or by e-mail to cei/aphis/usda@aphis.usda.gov.