



United States  
Department of  
Agriculture

Animal and  
Plant Health  
Inspection  
Service

Veterinary  
Services

# National Animal Health Monitoring System:

## A Tool for U.S. Animal Agriculture Information Management

Risk analysis...quality assurance...outbreak responsiveness...global marketplace. These relatively new concepts typify modern agriculture and represent expanding obligations for the Animal and Plant Health Inspection Service (APHIS). In 1983, APHIS' Veterinary Services initiated the National Animal Health Monitoring System (NAHMS) as an *information-gathering program* to address these and other challenges.

APHIS has succeeded in *controlling or eradicating* many domestic diseases and has denied foreign diseases entry or establishment in the United States. These successes have enabled the agency to target *endemic diseases; microbiologic pathogens; and environmental, genetic, and management-induced health problems*. Together, these factors make up a complicated, many-faceted puzzle of animal production.

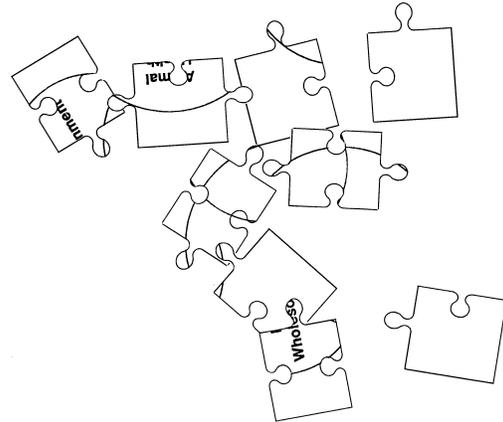
Multiple data sources, including Federal and state animal and public health agencies, universities, diagnostic laboratories, producer groups, and private interest groups, provide vital pieces of the puzzle. NAHMS is one of the tools APHIS is using to organize the pieces, adding others where necessary.

### Adding Value to Existing Data

NAHMS helps to make use of data collected by other industry sources by compiling statistics and information. The Veterinary Diagnostic Laboratory Reporting System (VDLRS) is one example of this value-added approach. NAHMS compiles and interprets diagnostic reports from state veterinary diagnostic laboratories to provide a timely assessment of trends and patterns in the U.S. Another example is animal health trend reports, compilations of available information that provide a forum for discussion of impacts of animal demographics, emerging disease agents and conditions, mortality, and management practices.

### National Studies

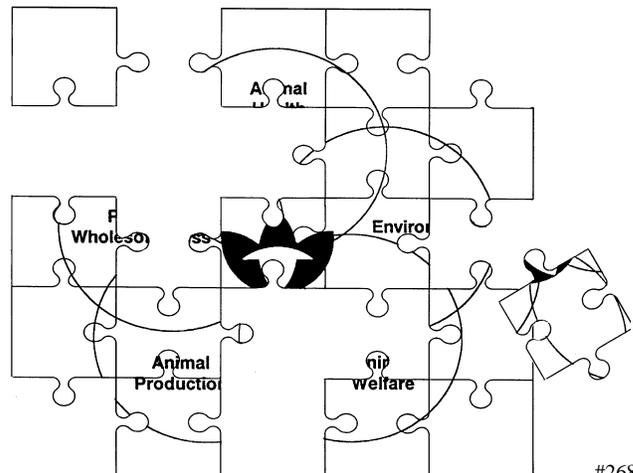
NAHMS serves as the impetus for Federal, State, industry, and university collaboration to gather fresh information to fill data gaps and identify more puzzle



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pieces. Through national studies, these multi-disciplinary resources gather data and generate descriptive statistics on animal health, productivity, and management. By 1995, a total of 37 states had participated in at least one of four NAHMS national studies addressing pork, dairy, beef cow/calf, and beef feedlot production.

Technological advances have allowed NAHMS to use a broad range of data collection methods, from on-farm interviews to such sophisticated techniques as computer-assisted telephone interviews. The same technologies allow for information dissemination through multiple means, including fact sheets and statistical summaries, multimedia presentations, and electronic transmission over worldwide computer



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networks. Technology has also improved timeliness of information delivery.

Baseline information from NAHMS studies remains accessible to support and accomplish a wide range of short- and long-term *analyses* as needs dictate, for example identifying associations between *Escherichia coli* 0157:H7 and calf management. Data are also used to address emerging issues, such as the 1993 outbreak of *Cryptosporidium parvum* in Milwaukee Wisconsin and a 1994 outbreak of acute bovine viral diarrhea disease (BVD).

### On-Going Monitoring

NAHMS collects additional data through low-resource, on-going monitoring projects that provide trend information, such as one involving somatic cell counts (indicating milk quality) initiated in 1994. Additional ongoing and national studies will be introduced periodically on both active and new animal species.

### Solution a Team Effort

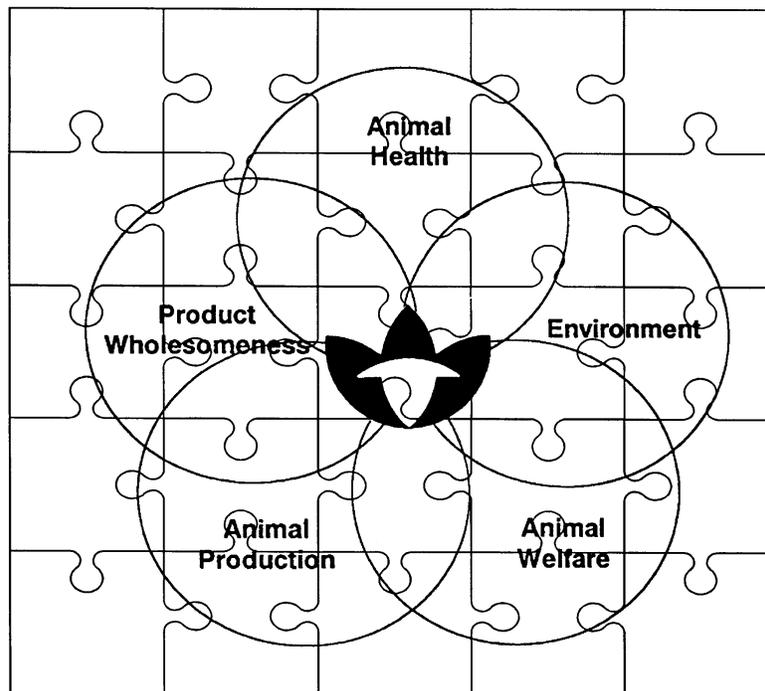
The completed animal health puzzle below shows APHIS' commitment to address all factors affecting U.S. animal agriculture: health, environment, welfare, production, and product wholesomeness.

Solving the puzzle will require an integrated and coordinated approach within the animal production industry. NAHMS exists as a champion for collaboration, utilizing risk assessment, management, and communication techniques to quantitatively and qualitatively estimate risk factors affecting animal health, food safety, public health, and the viability of U.S. agriculture both domestically and internationally.

For more information, contact:

**Centers for Epidemiology & Animal Health**  
**USDA:APHIS:VS, Attn. NAHMS**  
**555 South Howes, Suite 200**  
**Fort Collins, CO 80523**  
**Telephone: (970) 490-7800**  
**Internet: NAHMS\_INFO@aphis.usda.gov**

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