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National Animal Health Monitoring System Strategic Plan FY 2010–15





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Web site: <http://nahms.aphis.usda.gov>



Message from the Director

For more than two decades NAHMS has provided a strong foundation of comprehensive and reliable information characterizing the health status of U.S. animal agriculture. This characterization is complex due to many factors (the wide range of production practices and environmental situations, the scope of producer understanding and knowledge of diseases, and many and varied animal welfare issues), all of which in one way or another contribute to product wholesomeness.

Just as we have witnessed many changes over time in the key animal health indicators we try to measure and quantify, NAHMS will need to change to meet the evolving needs of APHIS–VS as well as the needs of the industries and taxpayers we serve. We should not be content just with the work we have performed in the past. I am asking NAHMS staff to take a fresh look at their work and begin to align their planning with our new strategic plan, which is based upon NAHMS time-honored values of excellence, respect, honesty, integrity, trust, and personal growth.

Currently, USDA and APHIS strategic plans are of utmost importance as the new administration evaluates the future. Likewise, VS is working hard at looking to the future with the 2015 Vision. We will align and adapt our plan as the need arises to support the VS mission.

Meetings on the NAHMS strategic plan began in spring 2008 and continued through early fall 2009. The Strategic Planning Team has met with NAHMS staff, stakeholders, and customers in an effort to develop a strategic plan that is comprehensive and sensitive to current conditions and future information and service needs. The results have been distilled into this document. First, our plan shows where NAHMS energy and resources will be expended over the next several years. Second, the plan identifies critical areas where change is necessary. Finally, our plan serves as a reference point to measure progress toward achieving our goals.

For NAHMS staff: As you read through the plan and discuss it with others, begin to visualize your contribution and work activities that will help us to achieve these strategic goals and objectives. In addition, I am confident that VS personnel will also see how NAHMS' strategies enhance their success in accomplishing the VS mission.

George W. Hill
Acting NAHMS Center Director



NAHMS MISSION, VISION, AND VALUES

APHIS MISSION

(APHIS Strategic Plan FY 2007–12)

To protect the health and value of U.S. agricultural, natural, and other resources.

VS MISSION

(Veterinary Services Strategic Plan FY 2006 to FY 2011)

Veterinary Services protects and improves the health, productivity, quality, and marketability of animals, animal products, and veterinary biologics by:

- Monitoring animal health and conducting surveillance for animal diseases;
 - Preventing, controlling, and/or eliminating zoonotic and animal diseases; and
 - Partnering with domestic and global stakeholders.
-

VS Strategic Goals

(See Appendix A.)

Veterinary Services' goals are aligned with APHIS' goals and with the needs of VS' stakeholders. Achievement of these goals requires broad interaction of all VS program, staff, and scientific units and extensive partnering with other Federal and State agencies, private industry, and academia.

Goal 1: Protect the United States from the occurrence of adverse animal health events. *(Adverse animal health events can result from the real or perceived impacts of diseases, pests, vectors, toxins, or natural disasters on public health, productivity, or trade.)*

Goal 2: Monitor and conduct surveillance of the health and productivity of our Nation's animal health populations and monitor the health-related attributes of animal products and veterinary biologics.

Goal 3: Enhance the health status of our Nation's animal populations by anticipating and

responding to new or emerging threats and managing, controlling, or eradicating those already identified.

Goal 4: Expand the domestic and international marketability of our Nation's animals, animal products, and veterinary biologics.

Goal 5: Create a highly effective animal health organization.

NAHSS Strategic Goals FY 2005

(See Appendix B.)

The goal of the NAHSS is to establish and maintain the expertise and infrastructure for early detection and global risk surveillance for foreign and emerging diseases; evaluation and enhancement of surveillance for current disease control and eradication programs; monitoring of diseases trends and threats to animal and veterinary public health in the United States and other countries; assessment of risk; and timely dissemination of animal health information, especially to those partners obligated to respond.

Goal 1: Early detection and global risk surveillance of foreign animal disease.

Goal 2: Early detection and global risk surveillance of emerging diseases.

Goal 3: Enhanced surveillance for current "program diseases."

Goal 4: Monitoring and surveillance for diseases of major impact on production and marketing.

NAHMS MISSION

To benefit producers and consumers of animal products, NAHMS derives and delivers timely factual information about animal health and associated interactions with animal welfare, production, product wholesomeness, and the environment.



NAHMS VISION

Provide comprehensive U.S. animal health information to the world.

The U.S. agricultural landscape has changed and NAHMS must evolve to meet the changing needs of our stakeholders. These changes have been driven by several factors: increased need for faster reporting on smaller areas of interest, declining financial and field staff resources, and the overall shift of APHIS to become a response agency.

NAHMS contributes to the technical excellence of APHIS. Our scientific data collection and products support APHIS programs, strengthen monitoring and surveillance efforts, and enhance policy development. With our partners and stakeholders, we identify trends, management practices, and issues that affect our Nation's agricultural animals. We optimize operational efficiencies by providing tools and support based on a comprehensive understanding of relevant technical issues, and biological and scientific facts. We use and transfer state-of-the-art technology to build NAHMS' capacity and to enhance program delivery. We contribute to knowledge and understanding of animal health through our national studies. As a result of our contributions, NAHMS' work is nationally and internationally recognized for excellence.

NAHMS works in partnership. We are a partner in VS program activities and engage our customers through effective communication and collaboration. We conduct our activities in an open, transparent manner to deliver appropriate and timely data that are valued by our stakeholders. Our multidisciplinary teams maximize the value of deliverables and leverage resources through dynamic relationships with partners, customers, and stakeholders. We value the power of partnerships and publicly recognize the contributions of all team members.

NAHMS invests in its people and technical resources. We foster a culture of innovation and service to develop and sustain a motivated workforce. We value and recognize each employee's contributions and achievements. Our employees maintain a high level of competence through technical training and professional development. NAHMS' employees

at all levels actively exchange information to enhance our operations and programs. Our facilities are properly equipped and adaptable to develop technology and respond to VS' changing program needs. These resources guarantee the necessary scientific and technical rigor required to accomplish the NAHMS mission.

NAHMS VALUES

NAHMS contributes to a larger public good by monitoring and reporting on U.S. agriculture animals and their environment. We are committed to excellence and accountability in fulfilling our goals. Our professional values guide us as individual public servants and as a unit within APHIS.

Excellence—We apply the highest standards to produce products and services that are credible, timely, and worthwhile to stakeholders, colleagues, and others.

Supporting principles and examples:

Excellence is confirmed by customer satisfaction:

- We strive to satisfy customers by using the best processes and methodologies that result in products and services that are credible, timely, and worthwhile to colleagues, stakeholders, and others.
- We rely on the scientific method and unbiased analytical reasoning, acknowledging that other factors may be considered in decision making.
- We use internal processes to hold ourselves accountable for consistency and quality in the timely delivery of our scientific and technical products.
- We are committed to the scientific excellence of our personnel. This is achieved through learning contracts that include continuing technical training and professional development.
- We regularly evaluate and recognize the scientific competence of our scientists through peer review.
- We are committed to rewarding our employees for their excellence in scientific, technical, and administrative achievements.



Respect—We will recognize diverse opinions, expertise, and values and maintain an attitude and environment that promotes team effort, both internally and externally. We will provide products and services, recognized nationally and internationally by stakeholders, for providing valuable information for decision making.

Supporting principles and examples:

- We respect stakeholders, coworkers, and others. We recognize diverse opinions, expertise, and values and maintain an attitude and environment that promote team effort, both internally and externally.
- We collaborate with other Centers in acknowledging that information sharing is beneficial to all.
- We engage in open dialog and debate to deliver realistic and practical solutions in meeting long-term needs of the Agency.

Honesty, integrity, and trust—We are a source of science-based information for all of our stakeholders. We accomplish this by accurately reporting information while strictly maintaining data confidentiality.

Supporting principles and examples:

- We earn the trust of our stakeholders and others by openly and equally sharing information while protecting the confidentiality of data.
- We are committed to honest and accurate reporting of information using the best available data.

Personal growth—We support individual and team growth through the acquisition and development of new knowledge, skills, and abilities for each employee.

Supporting principles and examples:

- We support individual and team growth by offering opportunities for the acquisition and development of new knowledge, skills, and abilities for each employee. We strive for a workplace that supports a balanced lifestyle.
- We pursue new uses for existing technologies and products. Creative solutions include new data management tools and analyses to enhance the value of existing data.
- We encourage unique and innovative approaches to deliver cost-effective solutions.
- We embrace problem-solving science to meet the unique challenges of a regulatory agency. We evaluate alternative solutions and explore options using scientific intuition, vision, and forward thinking.
- We empower visionary and lateral thought by creating a free-thinking environment.





STRATEGIC FRAMEWORK

The three strategic goals contained here describe NAHMS' plan of action. In addition, to ensure success, NAHMS also developed three key management initiatives that detail the plan to improve our ability to respond to requests, improve stakeholder understanding, and enhance ability to evaluate program impact and efficiency.

Performance measures will track progress in attaining the overall goals and objectives in the plan. Baseline information will be developed in the plan's first year. In following years, long-term performance targets will be set. Actionable strategies delineate the activities needed to reach the strategic goals.

NAHMS' three strategic goals show commitment to providing critical animal health information needed for decision makers, providing technical expertise for implementing studies, or developing state-of-the-art methods to address stakeholder information needs.

These three goals contain a total of nine objectives which address all activities and services within NAHMS area of responsibility.

Through these nine objectives, NAHMS will:

- Provide animal health information to critical surveillance plans, risk analysis, and others by making sound interpretations of results in timely fashion and continually monitoring stakeholder needs so that the correct information is provided at the correct times using the most efficient method of collection and dissemination;

- Expand collaboration with CDC and other public health organization to improve both animal and public health;
- Provide technical expertise and services to APHIS by maintaining ongoing assessment of needs and developing response mechanisms to meet those needs. NAHMS has a multidisciplinary staff and strong team concepts that center around study design, implementation, analysis, interpretation of results, and reporting of those results.
- Generate information in the future with state-of-the-art methods using the best statistical, epidemiological, and technical methodologies available which must be supported by a skilled workforce who understand the ever increasing complex world of animal and human health. Enhanced analysis and interpretation of sound statistical science-based data will support stakeholder decision making.

NAHMS' current reputation of providing sound scientifically based information to VS-APHIS and other stakeholders must be maintained and improved upon to support critical decisions in protecting U.S. animal agriculture.



STRATEGIC GOALS

Strategic Goal 1—Provide animal health information to support animal and human health decisions, research, and education

Scientifically sound interpretations of available data, delivered in a timely fashion, are critical to making sound decisions regarding surveillance, risk analyses, policy making, education, and research priorities. NAHMS will provide this information to animal health officials; livestock, poultry, and aquaculture industries; university extension/education; and other scientists.

NAHMS will accomplish this goal by accessing historical data collected during its national studies, proactively collecting new data via national or targeted studies, or accessing sources of secondary data. Value will be added by NAHMS through interpretation of data based on study design, analysis methods, industry knowledge, and animal health and production management expertise.

Strategic result: Increased ability to make science-based decisions to protect and improve animal and public health.

This goal supports many of the goals and objectives detailed in the Veterinary Services Strategic Plan for FY 2006 to FY 2011, especially objectives 1.3, 2.2, 3.1, 3.4, and 3.7. This goal also supports the goals and objectives of the NAHSS, in particular NAHSS goals and objectives 3.1, 3.10, 3.12, 4.4, 4.10 and 4.11. Based upon VS 2015, the informational products will include a broader spectrum of animal species and more products addressing public health concerns related to zoonotic diseases

Objective 1.1

Continually monitor the information needs of stakeholders such as the livestock, poultry, and aquaculture industries, APHIS and other government agencies to address priority animal health and related human health issues.

Key outcome: Provided information meets stakeholder needs.

Actionable strategies—

Future actions will include:

- Conducting needs assessment activities to seek input from information users regarding their needs;
- Attending industry and other meetings to keep abreast of current issues; and
- Facilitating requests for information to fill knowledge gaps/special requests (e.g., during an outbreak, research requests).

Objective 1.2

Gather information using a number of data collection methods and sources.

Efforts are made to anticipate future data needs related to animal and public health in agricultural settings. In many cases these efforts result in data being readily available to address questions from decision-makers. When timelines and specifications allow for new data collections, studies with specific objectives will be designed and implemented, and associated data analyzed. Timelines for making decisions may not always allow for the collection of new data to answer the questions at hand; in these cases, currently available information from a variety of sources will be used.

Key outcome: Cost effective and efficient collection of comprehensive data.

Actionable strategies—

Future actions will include:

- Designing and implementing new studies, and analyzing associated data to address specific information needs;
- Collecting data via:
 - In-person interviews
 - On-line
 - Telephone
 - Mail
 - Testing of biological samples;
- Pursuing authorization from OMB to conduct short-turnaround epidemiological studies;
- Drawing upon the repository of previously collected NAHMS data;
- Seeking sources of secondary data/information (NASS, DHIA, ARS, FSIS, etc.); and
- Evaluation and summarization of the literature.



Objective 1.3

Provide data/information in various forms via multiple modes of dissemination to meet individual stakeholder needs.

As NAHMS stakeholder base expands within the animal health arena and with the inclusion of public health agencies, requests for data/information will increase. This accentuates the need to share data/information while continuing to maintain confidentiality of study participants and their data. Because NAHMS has a variety of stakeholders, data/information must be disseminated in formats that meet their individual needs. Providing publications via electronic format reduces use of paper resources and shipping and handling costs.

Key outcome: Data/information products customized to users needs.

Actionable strategies—

Future actions will include:

- Developing and implementing standard operating procedures for data sharing;
- Providing information in the following products:
 - Descriptive reports
 - Information sheets
 - Interpretive reports
 - Manuscripts
 - Presentations
 - Individually tailored reports;
- Providing access to publications via paper and electronically (e.g., Web, CD, e-mail); and
- Conducting evaluations to ensure that products and modes of dissemination meet the needs of information users.

Objective 1.4

Collaborate with CDC and other public health organizations to improve animal and human health.

Animal health and human health are intertwined. Animal health and human health officials need to work together to further the “One Health” initiative to address zoonotic and newly emerging diseases. Encouraging collaborative efforts within the public and animal health arenas will help ensure optimal health for people, animals, and the environment.

Key outcome: Information and expertise from NAHMS supports the One Health initiative.

Actionable strategies—

Future actions will include:

- Building partnerships with public health agencies,
- Designing studies with input from public health agencies,
- Conducting biologic sampling/testing of disease agents important to animal and human health and food safety,
- Assisting in the interpretation and reporting of information, and
- Providing expertise in animal health and epidemiology.



Strategic Goal 2—Support APHIS and other Stakeholders by supplying technical expertise in veterinary epidemiology, statistics, economics, and information delivery

The demand for science-based decision making has never been greater. APHIS has embraced this need by incorporating more risk assessments, updating surveillance activities, and drawing upon a variety of primary and secondary data sources. NAHMS will support the needs of APHIS and other stakeholders for technical expertise in the design and implementation of epidemiological studies, and in the analysis and interpretation of data.

NAHMS' multidisciplinary staff is comprised of veterinarians, epidemiologists, statisticians, economists, subject matter experts for animal production systems, and support staff. This group of professionals is ideally suited to consult with APHIS and other stakeholders on the acquisition, analysis, and interpretation of data, and other epidemiological needs.

Strategic result: Collection of epidemiological data that are used by APHIS and other stakeholders.

This goal supports many of the goals and objectives detailed in the Veterinary Services Strategic Plan for FY 2006 to FY 2011, especially objectives 1.3, 2.2, 3.1, 3.4, and 3.7. This goal also supports the goals and objectives of the NAHSS, in particular NAHSS goals and objectives 3.1, 3.10, 3.12, 4.4, 4.10 and 4.11.

Objective 2.1 **Support the APHIS mission by maintaining ongoing assessments of the technical expertise needed in study design and implementation, data analysis and interpretation, and reporting.**

Animal diseases that could negatively impact U.S. agriculture or threaten human health have become of increasing concern. Partnerships within APHIS–VS and with other stakeholders are critical to ensure that all resources are utilized to provide timely information for science-based decision making. NAHMS' expertise in the collection of animal health data, study design and implementation, data analysis and interpretation, and information reporting could be

of significant benefit to stakeholders within and outside of APHIS. Technical epidemiological consulting services are also indispensable for responders to animal disease events.

NAHMS will be a leader in providing technical expertise for stakeholders within APHIS–VS and with other stakeholders such as industry, academia, and others. NAHMS will reach out to various programs and units within APHIS–VS to assess their needs for technical services, thereby fostering an increased awareness about the types of services available. The form of consultation will be dictated by the needs or issues that arise and will range from brief telephone discussions, face-to-face meetings, and expert speakers for training events, to full-service study design and implementation.

Protocols will be created for prioritizing requests for technical expertise and selecting staff members with appropriate experience and skills to respond to each request. NAHMS will also be flexible enough to supply timely technical expertise during emergency situations.

Key outcome: Develop a catalog of the technical expertise needs of APHIS units.

Actionable strategies—

Future actions will include:

- Increasing knowledge and currency of APHIS projects/activities that could benefit from NAHMS' expertise;
- Identifying needs of APHIS units and stakeholders for epidemiological/technical expertise related to data collection and analysis and study design and implementation;
- Developing criteria for prioritizing technical expertise needs; and
- Using external collaborators to fill gaps in needed technical or scientific skills.

Objective 2.2 **Develop mechanisms to respond to needs for technical expertise and provide technical services.**

NAHMS has extensive experience in study design, the creation and administration of surveys, data analysis and interpretation, and information reporting. The expertise within NAHMS could prove useful to the programs and units within APHIS or USDA that have needs for



epidemiological services but lack sufficient personnel with relevant experience to fulfill those needs. NAHMS will lead efforts to fulfill the epidemiological service requests for APHIS and other key stakeholders. Identified needs will be evaluated and prioritized relative to APHIS priorities.

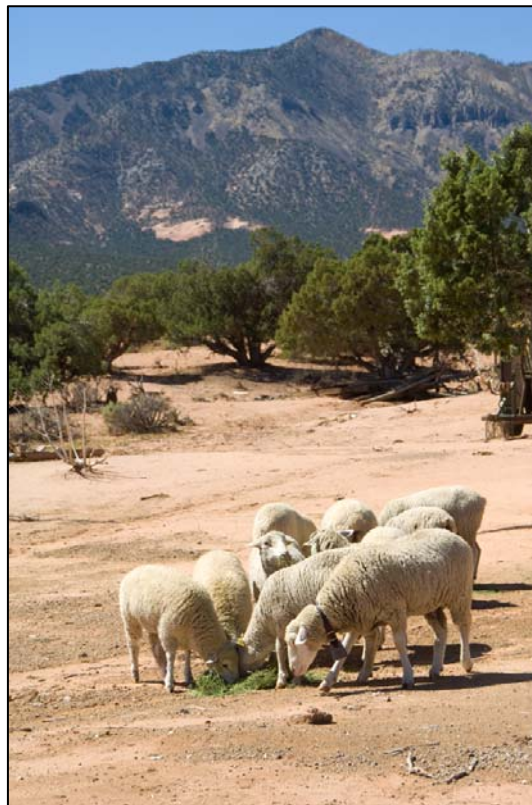
VS will become increasingly involved in responding to animal diseases that can negatively impact U.S. agriculture or threaten human health, and the scope of these disease responses will extend beyond traditional program diseases. NAHMS' experience in survey design and its knowledge of different livestock production systems in the United States will be useful for collecting appropriate information during responses to animal disease events.

Key outcome: Provide technical services that contribute to accomplishing the APHIS mission.

Actionable strategies—

Future actions will include:

- Developing questionnaire templates for use in response to animal disease events;
- Providing consultation services or training to assist with survey or study designs, outbreak investigations, data analysis and interpretation, and information reporting;
- Obtaining feedback from recipients of technical expertise and services to evaluate responses; and
- Developing a process for tracking how technical expertise requests were fulfilled.





Strategic Goal 3—Implement and/or develop state-of-the-art methods to enhance study design, data collection, data analysis, and information dissemination

To fully perform the functions defined in Strategic Goals 1 and 2, NAHMS must be able to provide current, high-quality, innovative, and readily understandable information and technical expertise.

NAHMS will evaluate and interpret scientific issues and disseminate the appropriate methodological and analytical tools and data as needed. NAHMS will stay up to date on emerging scientific and technical issues by developing and maintaining long-term active partnerships. NAHMS will maintain up-to-date knowledge about methods and technologies that will meet the existing and future needs for study design, data collection, data analysis, and information dissemination. By maintaining the latest knowledge and cultivating partnerships and collaborations with technical experts, NAHMS will help ensure that all its stakeholders have the best resources available to address pressing issues.

This goal supports many of the goals and objectives detailed in the Veterinary Services Strategic Plan for FY 2006 to FY 2011, especially objectives 5.1 and 5.3. This goal also supports the goals and objectives of the NAHSS, in particular NAHSS goals and objectives 3.1, 3.10, 3.12, 4.4, 4.10 and 4.11. In addition, based upon VS 2015, the technical expertise will be expanded across additional animal species, and will be developed specifically to address public health concerns that arise from zoonotic diseases.

Strategic result: Enhanced ability to address complex animal and public health issues in a timely, efficient manner.

Objective 3.1

Develop and maintain a skilled workforce with expertise in study design, data collection, data analysis, economics, and information dissemination.

The scope of NAHMS' work necessitates a broad range of knowledge and skills in order to implement projects effectively and efficiently. NAHMS has a long tradition of interacting with experts in statistics, epidemiology, and production animals to refine its own study approaches and assist collaborators in theirs. To remain current in its knowledge base, NAHMS has relied on recruitment, training, ongoing education, professional contacts, and interactions with other organizations such as the National Agricultural Statistics Service. This approach has resulted in a team of individuals skilled in study design and implementation, sampling methods, and quantitative and qualitative data analysis.

Key outcome: NAHMS maintains current knowledge and competencies for undertaking complex studies and investigations focused on animal health and public health.

Actionable strategies—

Future actions will include:

- Assessing NAHMS current technical-expertise base relative to current and projected needs;
- Cataloging the experience and skills of each member of NAHMS;
- Developing a plan to fill any gaps in technical or scientific skills by training current employees or by hiring new ones;
- Developing and updating a workforce plan based on current and anticipated needs in technical expertise;
- Developing a plan to train interested staff in these techniques and in associated software, if pertinent;
- Seeking opportunities for continuing education for NAHMS' employees, including short courses, conferences, higher education opportunities, and work details; and
- Encouraging outside experts to collaborate with NAHMS for periods of time, such as academic sabbaticals.



Objective 3.2

Understand and use state-of-the-art statistical, economic, epidemiological, and communication tools and methodologies—including developing new or adapting existing methodologies as needed.

NAHMS has earned credibility because of its ability to perform appropriate and up-to-date study design and data analysis. The unit takes advantage of opportunities to adapt existing methodologies and to investigate new approaches to address a variety of issues. While statistical and epidemiological methods are vital to maintaining our scientific credibility, it is equally important that we use current technologies to gather, store, and access data as well as to disseminate information to our stakeholders. NAMHS will continue to try new approaches to current and future challenges.

Key outcome: NAHMS will use the best statistical, epidemiological, and technological methodologies available.

Actionable strategies—

Future actions will include:

- Identifying the latest relevant sampling or analysis techniques for epidemiology and statistics;
- Keeping abreast of advances in data storage and handling;
- Pursuing optimal technologies to make information available to stakeholders (e.g., data sharing, Web publishing, audio and video distribution); and
- Increasing communication with other agencies to benefit from their experience and guidance.

Objective 3.3

Fully describe and document approaches, tools, and methods used in NAHMS' studies to ensure consistency within NAHMS and transparency to stakeholders.

NAHMS is recognized internationally for the scientifically valid information it produces. NAHMS will document and fully explain its approaches, study designs, and analytical methodologies so that they are transparent and provide an historical perspective for evaluating differences caused by changes in methodology.

Key outcome: The credibility of NAHMS and its products are enhanced by documenting and communicating the scientific methodologies used for its studies.

Actionable strategies—

Future actions will include:

- Completing and maintaining standards documents describing survey approaches and methodologies;
- Completing procedure documents for individual studies to capture all phases of survey development and administration, such as needs assessment, contact with industry representatives, special analyses, etc.; and
- Conducting program evaluations to assess and improve the effectiveness of the NAHMS program.



MANAGEMENT INITIATIVES

Management Initiative 1— Enhance ability to respond to requests for information and technical expertise

Stakeholders form an initial and immediate impression of NAHMS by the timeliness, professionalism, and quality of the service or response we provide. The number of requests for information and technical expertise will increase as we improve stakeholder understanding of NAHMS' informational and technical resources. Standard processes need to be developed to capture and understand the request and to track the response to the request.

Objective 1.1 Develop a process to receive and track requests for information and technical expertise.

A standardized request tracking form will be developed to capture the necessary information to define the request and understand the urgency of the request. This process will enable NAHMS to efficiently handle requests.

Key outcome: Central standardized inventory of requests to use for planning, documentation, and marketing of products, services and expertise.

Actionable strategies—

Future actions will include:

- Capture information requests centrally
 - Define and standardize information for tracking
- Facilitate receipt of requests by multiple modes including but not limited to:
 - Commodity experts
 - Web site
 - E-mail
 - Phone
 - Focus and user groups (annual meeting).

Objective 1.2

Develop a process to prioritize and respond to requests for information and technical expertise in a timely manner.

The prioritization process will ensure all employees completely understand the top priorities for responding to requests for information and technical expertise.

Key outcome: Center resources are used to respond to requests in a timely manner.

Actionable strategies—

Future actions will include:

- Establish criteria for request to be brought forward for a response by the Lead Team,
- Establish timeline for Lead Team response,
- Establish mechanism for tracking request response, and
- Establish criteria for prioritization of requests

Objective 1.3

Streamline processes required for the initiation of new data collections for short-turnaround studies.

Obtaining Office of Management and Budget (OMB) approval for new data collection generally takes about 1 year to obtain. The current approval process will be an impediment to timely collection of new data for short-turnaround studies. Expedited processes must be explored and implemented.

Key outcome: The Center has the capability to conduct short turnaround studies.

Actionable strategies—

Future actions will include

- Pursuing authorization from OMB to conduct short-turnaround epidemiologic studies; and
- Conform the operational plan and the Center's structure to the need to implement the short turnaround studies.



Management Initiative 2—Improve stakeholder understanding of the center as a resource for information and expertise

NAHMS has been a resource that has been appreciated by the agricultural industries, academia and extension for more than two decades. Generally stakeholders have seen NAHMS as a source of information solely derived from the national studies conducted by the program. With this new strategic plan and a new direction of emphasis for the center there is a need to inform all stakeholders about the array of information resources that can be provided as well as the expertise available to support the efforts of those within and outside of the agency. Creating this greater understanding of the center among all stakeholder groups (internal and external) will ultimately result in great use of the center as a resource and will further improve information available for decision making relative to animal and public health.

Objective 2.1 **Engage in outreach activities to key stakeholders.**

NAHMS will carefully plan and align opportunities to inform our key stakeholders of the long list of products and technical services NAHMS has to offer and to ultimately benefit the stakeholder.

Key outcome: Key stakeholders are well informed about the information and expertise available from the center.

Actionable strategies—

Future actions will include:

- Development and distribution of a variety of products to inform stakeholders about the center as a resource (info sheets, web pages, presentations etc.);
- Targeting of specific key stakeholder groups for messaging; and
- Focused marketing of products and expertise emphasizing internal stakeholders.

Objective 2.2 **Anticipate key stakeholder needs for information and technical expertise.**

During operational planning efforts, the Center must allocate resources for both the traditional National studies and the needs of the stakeholder community for information and expertise. Assessment of current and future needs for the key stakeholder groups is critical for success.

Key outcome: Center is well informed about the current and future needs of key stakeholders

Actionable strategies—

Future actions will include:

- Engage key stakeholders to identify future opportunities by participating/hosting:
 - Focus group meetings
 - Industry meetings
 - Agency working group meetings
- Participate in and host details and shadowing opportunities.



Management Initiative 3—Enhance ability to evaluate program impact to improve performance

NAHMS recognizes the importance of measurements or indicators which provide feedback for evaluation of program impact. This initiative addresses both program impact and efficiency. Although NAHMS has a strong culture and history of assessing the efficiency of its study-related processes, it has not developed overall measures that can be used as a basis for action. Ideally, an impact measure would be developed for each NAHMS commodity study. However, this may not be reasonable given the length of most studies, multiple products, and sometimes substantial lags in results, especially journal articles that reflect study results. Complicating this further is the fact that in any one specific year products from multiple commodity studies are being published and the results are being used by stakeholders. Also, in order for performance measures to be valuable there must be a focus on critical elements that can be easily measured and which can readily be evaluated for change. Thus, the focus of impact will be on the entire program.

Objective 3.1

Develop core quantitative performance measures for program activity, benefits, and efficiency.

There are four broad outcome areas or information usage areas upon which program impact will be measured.

- Government animal and human health programs
 - Emergency management preparedness
 - Disease spread model parameters
 - Surveillance planning
 - Program management and assessment
 - Zoonotic diseases
 - Trade facilitation
 - Disease investigations
- Animal health policy and legislation
 - VS
 - Other Federal/State agencies
 - Industry
 - Risk assessment
- Research support
 - Other Federal agencies
 - Academia
 - Allied industries

- Industry disease management
 - Producer awareness
 - Education
 - Quality assurance

Each of these four areas or categories has key stakeholders from which statements of impact may directly be obtained on a periodic basis or from which evidence of impact or data use may be obtained. Since NAHMS studies have been performed over the last 20 years this first attempt at measuring impact might cover a rather long period of time and subsequent updates made on a yearly basis thereafter. In summary these measures will focus documenting statements of data usage for each of the four categories of data uses

Key outcome: Performance measures are defined

Actionable strategies—

Future actions will include:

- Identify a project lead to examine specific NAHMS data uses in the four usage categories and to document those uses;
- Identify specific key customers or stakeholders within each of the four broad categories to act as a contact point for feedback and input on program impact;
- Identify specific key stakeholders to target the “communication campaign”—NAHMS technical expertise and further that the expertise could benefit the stakeholder; and
- Specific elements for performance tracking will be identified for each usage category.

Objective 3.2

Initiate tracking of elements contributing to performance measures.

NAHMS has a strong history of analyzing trends over time for specific health and management characteristics. This analysis and associated processes will be expanded to track elements important to measuring NAHMS performance.

Key outcome: Processes are identified to track performance elements over time.



Actionable strategies—

Future actions will include:

- Develop a formal, periodic feedback mechanism to collect information for appropriate usage categories; and
- Develop and populate a database for ongoing tracking of performance measure data.



Objective 3.3

Evaluate performance measures and document actions taken to improve performance.

NAHMS recognizes the importance of doing a job well, and has thrived upon the accomplishment and satisfaction of the “good job” award. However, NAHMS recognizes through this strategic plan that more must be done—especially in the documentation and handling performance, much like a business. Documentation facilitates communication which increases the odds of improving customer/ stakeholder satisfaction and ultimately improving overall program performance.

Key outcome: NAHMS reacts to performance measurements and makes necessary changes to its program and processes.

Actionable strategies—

Future actions will include:

- Evaluate all performance indicators:
 - Feedback for four broad usage categories
 - Results of project evaluation process
- Communicate findings to NAHMS customers/stakeholders
- Create recommendations to enhance performance and develop a plan for success.



Appendix A: VS Goals and Objectives

Matrix of VS Goals and Objectives					
	Goal 2: Monitor and conduct surveillance of the health and productivity of our nation's animal populations and monitor the health-related attributes of animal products and veterinary biologics.	Goal 3: Enhance the health status of our Nation's animal populations by anticipating and responding to new or emerging threats and managing, controlling, or eradicating those already identified.	Goal 4: Expand the domestic and international marketability of our Nation's animals, animal products, and veterinary biologics.	Goal 5: Create a highly effective animal health organization	
Goal 1: Protect the United States from the occurrence of adverse animal health events. (Resulting from the real or perceived impacts of diseases, pests, vectors, toxins, or natural disasters on public health, productivity, or trade).					
1.1 Prevent incursions of adverse animal health events by monitoring and managing the importation of animals, animal products, and veterinary biologics	2.1 Rapidly detect foreign and emerging animal diseases including those with public health/food safety implications.	3.1 Respond effectively to adverse animal health events and continue to improve the national animal health emergency response capabilities.	4.1 Improve market access and promote timely and efficient certification for exports of U.S. animals, animal products, and veterinary biologics.	5.1 Recruit, develop, and retain a competent, committed, and diverse workforce that provides high quality service.	
1.2 Collaborate internationally to maintain awareness of international animal health events and improve global animal health.	2.2 Track and report levels of certain endemic animal diseases including those with public health/food safety implications.	3.2 Ensure the nationwide availability of adequate laboratory capacity to support surveillance, animal disease investigations and control and eradication programs.	4.2 Certify animal production facilities as using processes designed to enhance the quality and safety of their animal-derived food products.	5.2 Improve internal and external communications to increase awareness, enhance cooperation and coordination, and improve productivity.	
1.3 Improve readiness to rapidly respond to disease incursions.	2.3 Conduct facility inspections to ensure compliance with animal health regulations and program standards.	3.3 Ensure the availability of quality veterinary biological products for diagnosis, prevention, and treatment of animal diseases.	4.3 Provide disease-status certification for animals entering domestic or international trade.	5.3 Utilize information technology effectively to improve every aspect of VS operations.	
1.4 Prevent the introduction and establishment of non-indigenous invasive species capable of harming U.S. animal populations.	2.4 Increase and improve capabilities to identify and trace animals and animal products nationwide to support disease investigations and other needs.	3.4 Reduce the incidence and spread of serious animal diseases including those with public health/food safety implications.	4.4 Improve diagnostic testing associated with the marketing of animals and animal products.	11 5.4 Implement administrative and management approaches which maximize flexibility while retaining accountability.	
	2.5 Improve pharmacovigilance (post-licensing monitoring) for veterinary biologics.	3.5 Eradicate animal diseases that pose a threat to the national economy.	4.5 Enhance the integrity of the export certification process through training of AVICs and Export Document Examiners, and through improved training of accredited veterinarians.		
	2.6 Improve laboratory diagnostic services, products and training to support animal disease surveillance.	3.6 Develop an effective mechanism for evaluating the significance of emerging threats and determining the appropriate response.	3.7 Enhance industry understanding of the associated risk and the monitoring and control of disease reservoirs and vectors.		4.6 Provide accurate, timely information in a convenient format to the VS Area Offices relative to changes in country import requirements.



Appendix B: NAHSS Goals and Objectives

NAHSS Goals and Objectives				
Objectives (12)	Goal 1: Early detection and global risk surveillance of foreign animal disease.	Goal 2: Early detection and global risk surveillance of emerging diseases.	Goal 3: enhanced surveillance for current "program diseases."	Goal 4: Monitoring and surveillance for diseases of major impact on production and marketing.
1. Coordinate and collaborate on design and implementation of disease surveillance (using standardized process)	X	X	X	
2. Develop standards, quality control, and performance metrics for current and future surveillance systems.	X	X	X	X
3. Encourage the development and application of new technologies for early and rapid disease detection and data analysis	X	X	X	
4. Support and perform data capture, analysis, interpretation, and dissemination (using standardized methods)	X	X	X	X
5. Develop domestic and global surveillance to detect and identify elevated risks for specified diseases and support response activities	X	X	X	
6. Establish and maintain a disease surveillance capability inventory to facilitate analysis of gaps in surveillance and surveillance systems integration	X	X	X	
7. enhance collaboration with domestic and international sources of disease surveillance information	X	X		
8. Develop reporting systems and reports for surveillance information dissemination	X	X		
9. Identify regulatory limitations for conducting surveillance	X	X		
10. Contribute to animal disease awareness education for producers and practioners	X	X	X	X
11. Coordinate and collaborate on monitoring animal health and production trends				X
12. Evaluate and design rigorous scientific methods to assess progress in disease prevention, control and eradication programs			X	



Appendix C

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