



Veterinary Services 2015 Project



**One Health
Strategic Direction**



**The One Health Working Group
Final for inclusion in Synthesis Plan, 3/1/11**

**STRATEGIC PLAN
FOR IMPLEMENTING ONE HEALTH ACTIVITIES
WITHIN USDA APHIS VS**

**A Business Plan from the VS 2015 One Health Working Group
November 11, 2010**

VS 2015 One Health Working Group

VS 2015 Coordinators

Roxanne Mullaney
Nora Wineland

VSMT Sponsors

Elizabeth Lautner
Brian McCluskey (to April 2010)

Members

Joseph Anelli
Lynn Creekmore
Ashley Glosson
Thomas Gomez
Beth Harris
Steven Just
Patrice Klein
Katherine Marshall
Michael McDole
Lee Myers
Sheryl Shaw
Jay Srinivas
Leslie Tengelson
Jill Wallace
Randy Wilson

**STRATEGIC PLAN
FOR IMPLEMENTING ONE HEALTH ACTIVITIES
WITHIN USDA APHIS VS**

TABLE OF CONTENTS

	<i>Page No.</i>
Chapter 1: Perspective	
Executive Summary	1
History	3
Context	4
Vision	6
Mission	6
Chapter 2: Challenges	
Critical Obstacles	7
Goals	7
Indicators of Success	8
Chapter 3: Solutions	
Infrastructure Assessment	11
Implementation Plan	12
Dissemination Plan	16
Monitoring and Revising Strategic Plan	16
Summary	17
Appendices	
Appendix A: APHIS VS OH Goals, Objectives, Tasks, and Implementation Plan	18
Appendix B: Values	35
Appendix C: Strengths, Weaknesses, Opportunities, and Threats (SWOT)	39
Appendix D: Example of OH Interactions for Infectious Diseases	47

Chapter 1: Perspective

EXECUTIVE SUMMARY

Changing Landscape for APHIS VS

The ever-changing demands of animal agriculture continue to impact the resources and programs of the Animal and Plant Health Inspection Service (APHIS) Veterinary Services (VS) and their relevance to the needs of our stakeholders. The convergence of people, animals and our environment has created a powerful dynamic through which the health of animals is inextricably linked with the health of people and the viability of ecosystems: This is a concept commonly known as One Health (OH). Additional forces specifically impacting animal health and APHIS VS include: Rapid advances in cutting-edge technology and disease identification, the emergence and re-emergence of infectious diseases (including zoonoses), bioterrorism threats to both humans and animals, changing dynamics of global agriculture and trade, an increased around-the-clock connectivity with our customers, and flat or decreasing federal budgets. APHIS VS faces profound and unprecedented challenges associated with all of these dynamics.

The OH initiative has gained significant traction throughout US Government and is led by the President's new policies for national security and global development. The Secretary of Agriculture is taking action to help manage Federal interagency OH planning, coordination, response and policy-making. The Secretary emphasized this on March 31, 2010 when he stated, "...There are numerous policy groups that have formed and are being formed that focus on OH. It is important that USDA has a voice at these tables and forms sound policy, as the decisions that are made through these groups will have a substantial impact on the work that we do...". The Secretary supports APHIS VS developing policies and focusing on strategic responses that address newly emerging OH principles.

Interest in OH is surfacing in both the public and private sector. Members of the US Congress have demonstrated their support of OH principles by introducing legislation to promote, implement, and sustain veterinary services, and veterinary public health; to promote training in food systems security; to develop strategies to address antimicrobial resistance; and to develop other veterinary health initiatives. The private sector understands that harnessing the combined expertise of medical and veterinary science can transform the ability to control and eradicate a range of pathogens that pose major threats to both human and animal health, and that undermine the viability of livestock agriculture and food production. As part of its vision for 2015, APHIS VS is committed to embrace OH as part of the solution to address the changes and challenges of the APHIS VS landscape.

Strategic Recommendations and Priorities

To implement its vision of OH and effectively respond to the call from the OH community, APHIS VS must conduct internal readiness activities to strategically position itself as an animal health leader and partner in OH.

The VS 2015 One Health Working Group (OHWG) identifies the following goals to provide US leadership for the animal component of OH, and for building credibility, trust, and respect within the OH community.

- 1) Align APHIS VS policy, programs, and infrastructure with VS 2015 OH vision**
- 2) Build new collaborations and partnerships, and sustain existing relationships in the OH community**
- 3) Spearhead outreach and communication to build credibility, trust, and respect in the OH community**
- 4) Transform the APHIS VS culture and workforce, and build new skill sets to support and integrate VS 2015 OH principle**
- 5) Apply our unique competencies to support and enhance the OH community**

One Health Call to Action

Organizational change is a strategic imperative in today's fast-paced, technologically driven, and socially networked environment. There is an urgent need for APHIS VS to demonstrate our commitment to the President, Congress, Secretary of Agriculture, our stakeholders and partners by adopting and advocating OH principles throughout the agency. This Strategic Plan describes the OH vision and priorities for APHIS VS for the next five years and can serve as an action plan to guide the Agency during this process of change.

APHIS VS has great potential to lead the animal component of OH. However, reluctance by our Agency to take action and contribute our expertise will result in lost opportunities and critical gaps that will be filled by other groups. This strategic plan illustrates several key internal factors that will determine the ability of APHIS VS to be a valued OH stakeholder and successfully respond to the OH call to action. APHIS VS must strengthen its workforce, policies, business operations, budget structure, and technologies to prepare for the incumbent changes ahead of us. As an organization, APHIS VS must carefully evaluate these factors, embrace the necessary changes, and moreover, become a forward thinking organization.

Implementing the VS 2015 OH strategy will commit our organization to build upon past successes in safeguarding American agriculture. The strategy will also adopt a new paradigm to address the complex intertwined health relationships between animals (both domestic and wild), humans, and their shared environment. APHIS VS will provide US leadership for the animal component of OH and serve as a dedicated partner toward improving the global health of people, animals, ecosystems and society.

HISTORY

APHIS VS is recognized globally as the US authority on diseases of livestock and poultry. Historically, APHIS VS has emphasized responding to animal diseases impacting agricultural production, including those that are often associated with control or eradication programs (classified as “APHIS VS Program Diseases”), and diseases not endemic in the US (classified as “Foreign Animal Diseases” [FAD’s]).

In 2006, the VS Management Team (VSMT) began evaluating its involvement in emerging zoonoses and food safety through discussions and surveys resulting in the document “Emerging Zoonoses and Public Health – Next Steps for Veterinary Services.” In early 2007, the VS Management Team (VSMT) entered into discussions focused on the changing animal health landscape. Forces identified as impacting animal health and APHIS VS included: the changing practices and newly evolving needs of the animal agriculture industry; rapid advances in cutting edge technology and disease identification; the emergence of new diseases (including threats from bioterrorism) affecting both the public health and animal health arena, global agriculture and trade; an increased around-the-clock connectivity with our customers; and flat or decreasing federal budgets.

In 2008, APHIS VS’ Chief Veterinary Officer, Dr. John Clifford, announced the VS 2015 strategic vision to guide the organization toward making holistic changes to meet animal health needs in the 21st century. The VS 2015 factsheet released announcing the initiative stated “While enhancing US animal agriculture by improving animal health will remain a cornerstone of VS’ work in 2015, VS will also engage in health issues impacting public health when those issues are connected to animal populations of any kind. VS will be proactive in assisting with issues that affect food safety and public health by providing national leadership on the animal health component associated with these issues. VS will collaborate with others to identify science-based interventions along the animal production chain to protect public health. VS will work with wildlife entities to address health issues that impact production agriculture and wildlife health.”

VS 2015 vision recognizes past achievements in animal agriculture and provides the foundation for OH interaction with counterparts in the public and environmental health arenas, the global impact of animal health on public health increases the urgency in VS engagement in OH. For example, diseases such as avian influenza that historically concerned only the animal health community now make national and international headlines because of their well known public health implications. VS 2015 presents a collaborative mechanism for APHIS VS to recognize these opportunities for growth while providing a means to tackle the new realities of jointly addressing current and emerging issues affecting humans, animals and their environment. The end result will benefit APHIS VS as well as our external partners and global customers.

CONTEXT

APHIS VS has unique experience and expertise in managing animal-related diseases. The experience, expertise and core capabilities of APHIS VS position our organization not only to meet animal health challenges arising from the forces described above but also to serve as the national veterinary authority of the US.

VS has contributed to the health of the nation since the agency's inception by sustaining and improving the health of the nation's livestock herds and poultry flocks. We help feed people, protect them from zoonoses, and support the economy. These principles will remain a cornerstone of APHIS VS' work in 2015. To ensure that we continue on this path, APHIS VS will make the transition from focusing primarily on maintaining freedom from specific diseases affecting agricultural animals to an organization recognized as a leader and partner of choice for all animal health issues at the animal-human-environmental health interface. As part of our expanded OH mission for 2015, APHIS VS will engage and partner in health issues affecting public health, environmental health, and societal health when those issues are connected to animal populations of any kind.

APHIS VS will take the initiative to assist with issues affecting food safety and public health by providing national leadership on the animal health component associated with these issues. APHIS VS will collaborate with subject matter experts to identify science-based interventions along the animal production chain to protect public health, and coordinate with wildlife entities to address health issues impacting production agriculture and wildlife health. APHIS VS will contribute its veterinary assets (e.g., laboratory networks, stockpiles, and response corps) to provide leadership in areas within APHIS VS' expertise (e.g., epidemiology, surveillance planning, risk analysis, and modeling) when public health issues arise involving exotic and wildlife species.

The VS OH initiative for 2015 paves the way for APHIS VS to develop new, and enhance existing collaborative and cooperative partnerships with USG agencies and other scientific-health related disciplines to combat both domestic and international health threats at the human-animal-ecosystem interface. Since many countries lack the veterinary infrastructure for responding to diseases that can spread to other countries (including the US), the VS OH initiative will include international involvement for identifying and containing diseases at the animal-human interface. It will also increase public awareness of the role APHIS VS plays in combating diseases in the OH arena, such as highly pathogenic avian influenza and bovine spongiform encephalopathy.

The OH initiative provides APHIS VS with the momentum to collaborate with other agencies on food safety issues that continue to draw public attention and have implications for both public health and animal disease control. Environmental issues, such as climate change and the potential for terrorist attacks, are also within the scope of the OH initiative. By embracing the VS 2015 OH vision, APHIS VS is committing itself as an organization to build upon our history of safeguarding American agriculture and expand our role to address the complex intertwined

health relationships between animals (both domestic and wild), humans, and their shared environment. Adequate resolution of these complex problems will require a unified, interdisciplinary approach.

APHIS VS contributes to the needs of the OH mission through the lens and perspective of professionals in animal health. As a science-led organization, VS' expert services, tools, and knowledge contribute to the comprehensive and holistic approach needed to solve OH issues. VS employees possess diverse skills and competencies and unique tools that can contribute significantly towards meeting our vision to improve the health of animals, people, ecosystems, and society. **Our experts are trained in a variety of disciplines including:**

- **Population medicine**
- **Zoonoses and Public Health**
- **Wildlife diseases**
- **Environmental health (includes water quality)**
- **Economics**
- **Food safety**
- **Parasitology**
- **Human-animal bond**
- **Nutrition**
- **Humane handling and euthanasia**
- **Risk assessment**
- **Epidemiology**
- **Pathology**
- **Toxicology**
- **Systems approaches**
- **Veterinary context**
- **Research and gathering of evidence**

VS has programs and activities targeted toward disease prevention, control, emergency preparedness and response. These include efforts to ensure safe imports of animals, animal products, and biologics, as well as certifying animals, animal products, and veterinary biologics for export; ensure that accredited veterinarians are available to conduct regulatory functions; and plan and prepare for animal health emergencies including those resulting from incursions of FAD's, natural disasters, emerging disease incidents, and agro-terrorism.

There are programs aimed at ensuring the rapid detection of, and early response to, animal disease threats, and the development and application of new technologies for early and rapid disease detection. VS monitoring and surveillance systems for foreign and emerging animal diseases include the National Animal Health Surveillance System, the National Animal Health Laboratory Network, and the National Animal Health Reporting System.

VS also has programs designed to eradicate, control, or prevent diseases that threaten the biological and commercial health of US livestock and poultry industries. Diseases targeted in APHIS eradication programs include scrapie in sheep and goats, tuberculosis in cattle and cervids, pseudorabies in swine and brucellosis in swine, cattle and bison. Other animal disease programs cover avian influenza, salmonella, and mycoplasma diseases in poultry, chronic wasting disease in cervids, John's disease in cattle, trichinae in swine, swine diseases (through the Swine Health Protection Inspection Program), infectious salmon anemia, viral hemorrhagic septicemia, and equine infectious anemia.

Through the VS 2015 program, VS will leverage our existing knowledge, skills, and abilities while building new competencies. VS is well poised to be an effective OH partner and continue to be a leader in animal health issues.

VISION

APHIS VS will provide US leadership for the animal health component of OH and, as a dedicated OH partner, will contribute toward improving the global health of people, animals, ecosystems and society.

MISSION

As the Federal government animal authority, APHIS VS will contribute expertise, infrastructure, networks, and systems to partner effectively in a multi-disciplinary, multi-level (local, state, national and international) collaborative approach to promote healthy animals, people, ecosystems and society.

Chapter 2: Challenges

CRITICAL OBSTACLES

In order to realize the VS 2015 OH vision, we must recognize the critical obstacles before us and develop ways to overcome them. The OHWG recommends that the Synthesis Group carefully evaluate the following critical obstacles and develop solutions for them. APHIS VS will remain cognizant of both current and future challenges that may impede success, as illustrated in the below examples.

- Need for educational awareness among APHIS VS employees and VS' role in OH
- Lack of support for APHIS VS role in OH by some employees, and external OH partners
- Current APHIS VS infrastructure inadequately coordinates OH issues (e.g., personnel, operating procedures)
- Ineffective communication within APHIS VS and outward to OH partners
- Limited funding and budget structure

GOALS

The strategic plan for implementing OH activities within APHIS VS outlines goals and objectives for the future of VS OH, strategies to achieve these goals, and systems to evaluate progress. The development of the strategic plan included shared review and discussion to establish vision and direction. Active participation and transparency were ensured to gather wide ranging ideas as documents were drafted and reviewed. This exchange of ideas has stimulated an innovative statement of our goals as VS responds to the incumbent challenges and the opportunities we have before us as an organization.

The following **five VS 2015 OH goals** set out a vision for the future of VS OH activities and provide guidance for decision-making that will have a profound and positive impact on the entire VS organization and the OH community. This will improve the lives of all animals, including humans, and build credibility, trust, and respect within the OH community. Additional details related to the goals, their respective objectives, and tasks can be found in “*Appendix A*” of this document.

- 1) **Align APHIS VS policy, programs, and infrastructure with the VS 2015 OH vision.**
- 2) **Build new collaborations and partnerships, and sustain existing relationships in the OH community.**
- 3) **Spearhead outreach and communication to build credibility, trust, and respect in the OH community.**

- 4) **Transform the APHIS VS culture and workforce, and build new skill sets to support and integrate the VS 2015 OH principle.**
- 5) **Apply our unique competencies to support and enhance the OH community.**

The Secretary of Agriculture has established 4 goals for his Administration centered on rural community prosperity, ecologically healthy lands and water, global food security and the promotion of agricultural exports. The VS 2015 OH vision to provide US leadership for the animal health component of OH and to be a dedicated partner toward improving the global health of people, animals, ecosystems and society is consistent with the goals of the Secretary of Agriculture.

The American Farmer today is facing tough economic times even as the world faces unprecedented global food insecurity. In addition to these tough economic times, there is an ever increasing burden placed on the American Farmer associated with environmental and public health issues (including pre-harvest food safety). It is imperative that the OH holistic principles be applied to these “wicked problems” (i.e., problems that are unique, unwieldy and possibly requiring non-traditional solutions) to provide balance and ensure continued economic development of rural communities while conserving ecological resources and ensuring a safe plentiful and wholesome food supply for the American consumer and the world.

The VS 2015 OH vision also will improve the global marketability of US agricultural products (which already provide \$22.5 billion to the US economy) and continue to support the US trade surplus. This is consistent with Executive Order 13534 (National Export Initiative) to increase US exports as well as the Secretary’s interest to promote agricultural production, to encourage biotechnology exports and increasing rural prosperity.

The application of OH partnership principles will establish an environment in which synergistic solutions can thrive making the Secretary’s goals easier to achieve at a lower cost. The Secretary himself recognized the many multifaceted solutions being developed throughout government and the private sector and created the USDA One Health Multiagency Coordination Group to ensure USDA was well positioned and prepared to harness this synergy and apply it for the betterment of people, animals and the environment.

INDICATORS OF SUCCESS

As VS moves into the future and encompasses its vision for 2015, it will face many challenges in its realignment of its mission, goals and priorities. Our ability to identify successes in this area will need to be considered broadly at all levels. However, certain aspects – communication, relationships, frustrations, management, and competency -- of this vision relating to OH are captured as follows.

Communication Effectiveness

- Administer an Area Epidemiologist Officer (AEO) survey on a quarterly or semi-annual basis to assess involvement of APHIS VS employees with OH activities and identify areas for improvement. Ideally, this survey will be reviewed by a VS OH Coordination Office, who will in turn provide the APHIS VS Management Team a summary and recommendations for focus areas.
- Expand the AEO survey to include other APHIS VS employees and external stakeholders.
- Assist the organization toward equipping the business unit and site communicators with data and recommendations to drive "local" ownership and accountability of OH communications.
- Identify types of OH collaborations and cooperative agreements with external stakeholders which are currently in place.
- Establish a future APHIS VS OH website to gauge public interest/effectiveness of external communication by measuring website hits, the number and frequency of e-mails routed to the future APHIS VS OH office and interest in particular OH projects or initiatives.
- Incorporate a OH "idea hub" on the future APHIS VS OH webpage where APHIS VS employees or external stakeholder can submit ideas/suggestions relating to APHIS VS OH activities.
- Measure the number of participants in APHS VS OH sponsored meetings/webinars
- Develop introductory "OH 101" workshops for APHIS VS employees and conduct workshop evaluations.
- Measure the number of participants in the OH developmental assignment program.
- Assign OH communicators to assure OH message is infiltrating all levels of APHIS VS management.
- Encourage information flow, including improved transparency, timeliness, and two-way dialogue across the various levels of APHIS VS management, i.e. top-down, bottom-up, and middle-out.

Stakeholder Relationships/Trust in Agency

- Measure the number of outside agencies/stakeholders with connections to the APHIS VS OH mission; determine type and level of involvement, (e.g., supporting a OH activity through cooperative agreements, extramural funding, etc.).
- Determine the APHIS VS response rate to requests for assistance with OH issues, including the number and type of responses per year.
- Determine to what extent the APHIS budgeting process funds APHIS VS OH activities.
- Determine the extent of commitment from APHIS leadership, including administrators of other APHIS agencies, to actively support APHIS VS' role in OH.

- Determine the number of agencies/stakeholders willing to provide funding to support APHIS VS OH activities.
- Determine the type and level of OH strategic guidance from APHIS VS leadership.
- Determine the willingness of APHIS VS staff to participate in OH activities, (e.g., number of employees entering data into the Employee Qualifications System, number of participants in the Short Term OH detail assignment).
- Measure the number of requests for OH information and datasheets/factsheets, e.g. raw milk, from the future APHIS VS OH webpage.
- Measure the number of OH incidents/responses nationwide, determine in which of those incidents/responses APHIS VS had a potential role, and determine in which of those incidents/responses APHIS VS was requested to engage. For those incidents/responses involving APHIS VS, determine the type of role VS played (lead/support) and the extent of involvement.

Stakeholder Frustration

- Assess negative instances/occurrences.
- Measure employee turnover and conduct exit interviews.
- Review the number of extramural cooperative agreements cancelled or not renewed.
- Determine the desire of OH partners to seek alternate partners or remove funding from APHIS VS OH programs.

Inter/Intra Agency Relationships

- Determine how vested our stakeholders are in OH.
- Assess similar measures for stakeholder relationships/frustration.

Project Management

Projects will be measured through the stage/gate process. Project success will be measured by its ability to align with the OH strategic goals and objectives, provide realized benefits to the agency and improve operational processes/products/services.

Employee Competence

There is a need to evaluate OH competency within the VS community. The VS 2015 Synthesis group is actively engaging Tom Scott on workforce planning to address this benchmark, ensuring that we have the necessary qualified staff to support OH activities by supporting our new and existing collaborations, providing assistance with epidemiological investigations, and expanding our skill sets to actively interface with other agencies/stakeholders in matters related to OH. As APHIS VS expands its presence in the OH arena, we will need to look at our ability to retain employees and provide clear paths to advancement for those employees who wish to continue their careers in APHIS VS.

Chapter 3: Solutions

INFRASTRUCTURE ASSESSMENT

Challenge

Frequently, organizational change creates gaps in alignment between Information Technology (IT) infrastructure and business goals. Inconsistencies in technology, processes, and people skills can weaken infrastructure stability, hamper operational efficiency, and reduce the chance of reaping realized benefits. The goals, objectives and tasks outlined within this strategic document are critical drivers for organizational change in support of the VS 2015 OH goals.

The OH Working Group recommends an infrastructure assessment to propel our current organizational structure toward the future. We plan to work closely with the Synthesis Group and assist them in the identification and mitigation of any inherent organizational risks that could serve as potential barriers in executing our OH goals and objectives.

Solution

An infrastructure assessment identifies the steps an organization needs to take to align its IT to business needs and goals. VS will need to continue efforts in this area to meet the needs of the 21st century.

Collaboration with key stakeholders will help us to understand primary Business drivers and establish a baseline of technologies, processes, and people that impact the Business and IT infrastructure. Upon completion of an infrastructure assessment a comprehensive report is developed detailing baseline findings, Business/infrastructure gaps, and recommendations for alignment. This can most effectively be accomplished through a balanced scorecard exercise.

The scope of the assessment can be custom tailored and may include a review of integral business units, networks, systems, and information security. It may also include an assessment of service and product management components. In order to evaluate key efficiencies in this area, a risk assessment also must be completed to highlight any vulnerability.

Results

- Greater insight into the APHIS VS governance model and technology management—an understanding of the APHIS VS structure and its capabilities
- Improved operational efficiency
- Greater compliance with internal controls and external regulatory requirements to mitigate risk

- Effective communication planning
- Needs assessment for new and emerging policies and procedures

Recommendations to the Synthesis Group

There is a critical need to provide recommendations to the VS 2015 Synthesis Group regarding the area of internal communications, organizational culture change, regulatory authorities, policies, and the associated gaps. Therefore, the OH Strategic Plan Sub-group is recommending that the Synthesis group spearhead an effort to address the following concerns:

- Need for educational awareness among APHIS VS employees and VS' role in OH
- Lack of support for APHIS VS role in OH by some employees, and external OH partners
- Current APHIS VS infrastructure inadequately coordinates OH issues (e.g., personnel, operating procedures)
- Ineffective communication within APHIS VS and outward to OH partners
- Limited funding and budget structure
- Evaluate APHIS VS and cross-agency authorities and gaps for OH (e.g., Public Health Service Act, Animal Health Protection Act, etc.).
- Define where authority gaps exist, collaborate with partner entities to determine who will lead and mobilize the efforts geared toward filling the gaps, and if authority is needed by other entities to assist the lead organization.

IMPLEMENTATION PLAN

The following implementation plan and related tables provide a roadmap to forge an organizational foundation for VS' role in the OH community. The roadmap is based upon the findings from an analysis of VS strengths, weaknesses, opportunities, and threats (SWOT). These findings and related analyses provide the strategic direction for the VS OH vision and mission. Additionally, these findings provide the tools necessary to evaluate both internal and external factors that could serve as obstacles in realizing our vision. Hence, the strategic plan considers the APHIS VS organization in its entirety, including its past, present, and possible future state.

In conducting a preliminary evaluation of VS, strategic goals, related objectives, and tasks were developed to identify risks, identify mitigation strategies, and evaluate operational deficiencies. As a result, operational improvements are proposed within the implementation plan for the following key areas:

- Communication
- Business and information technology processes
- Funding and personnel
- Stakeholder engagement and participation

- Leadership support
- Inter-agency and intra-agency collaboration and partnerships

Transforming the cultural dynamics of APHIS VS is a critical component for successfully adopting these goals and incorporating OH principles into the daily operations of the organization. The tables below reflect a logical progression of tasks necessary to establish and strengthen the foundation of APHIS VS in the OH community, and most importantly, implement these critical components into the VS culture. Some of the tasks listed within the tables below were initiated through our current partnerships and existing resources. However, these tasks need to be fully implemented and require dedicated resources. Additional details related to the goals, their respective objectives, and tasks can be found in “Appendix A” of this document.

Current One Health Activities (In-progress)	
Task ID	Task Description
2.1.1.	Partner with the Global Early Warning System for Major Animal Disease, including zoonoses (GLEWS) to improve zoonotic disease surveillance and use the data to deploy VS Assessment Teams.
2.1.3.	Participate in the health committee of the North American Leaders Summit which consists of 17 tasks assigned to APHIS VS.
2.1.8.	Coordinate USDA and CDC efforts with OIE and FAO; look at how to support CDC
2.2.7.	Work with the Epi-X editorial board to expand Epi-X access to additional Federal and State animal health agencies.
2.5.1.	Partner with the OH Commission.
2.5.2.	Coordinate interagency activities regarding the proposed Institute of Medicine OH Study.
3.1.5.	Promote the publication of OH findings, including proof of concept studies, in peer reviewed journals.

Year One Implementation – 2010 Priority Activities	
Task ID	Task Description
1.1.1.a.	Establish an interim OH Coordination Office.
1.2.1.	Establish policies for national involvement in incidents involving zoonotic agents, including which types of events APHIS VS will provide leadership at and when it will assist partner agencies and stakeholders, identification of the triggers for involvement, scope of interaction, and prioritization for APHIS VS involvement.
1.2.2.	Establish policies for regional and area offices (or equivalent) to support OH activities that focus on high-consequence locally important issues.
1.3.3.	Develop APHIS VS policy and role in pre-harvest food safety.
2.2.3.	Develop a productive collaboration and sustained partnerships with Federal OH partners.
2.3.1.	Empower APHIS VS Area personnel to establish relationships and maintain collaborations with State/Tribal OH partners.
2.3.2.	Empower APHIS VS Area personnel to establish relationships and maintain collaborations with local OH partners.
3.2.2.	Identify additional constituent groups to advocate OH principles and USDA’s role in them.
4.2.1.	Develop a VS One Health Communication Plan.
4.3.1.	Create One-Health Training and Development courses for APHIS VS employees.
5.2.1.	Actively support requests for domestic OH investigations and provide VS personnel, resources, and expertise (e.g. Epi-Aid, EQS, VSAT).
5.3.3.	Identify the State Veterinary Diagnostic Laboratories that are working on selected or prioritized zoonotic diseases and determine how APHIS VS can help coordinate surveillance efforts.

Year Two Implementation – 2011 Activities

Task ID	Task Description
1.1.2.	Develop IT infrastructure to allow sharing of data and info between VS divisions and between APHIS VS and OH partners.
1.1.4.	Evaluate existing programs and leverage them to the extent possible to accomplish APHIS VS OH initiatives.
1.2.3.	Develop templates, standard operating procedures, communication procedures, occupational protection guidance, and role & responsibility flowcharts with OH partners for use when working with a zoonotic agent.
1.2.4.	Develop MOU or MOA with CDC and other OH agencies to share human and animal data on diseases of mutual interest.
1.3.6.	Develop APHIS VS policy concerning role in wildlife species.
1.3.7.	Harmonize diagnostic laboratory testing protocols and communication between animal health and public health laboratories regarding standardization of methods, tech transfer, surge capacity, etc.
2.1.10.	Advance the President's international trade initiative specifically for animal products.
2.1.11.	Provide support to establish organizational structures that will formalize global cooperation in OH.
2.1.12.	Support and contribute to the development of a global OH Business plan.
2.2.3.	Develop a productive collaboration and sustained partnerships with Federal OH partners.
2.2.4.	Develop a productive collaboration and sustained partnership regarding pre-harvest food safety initiatives, including anti-microbial resistance.
2.2.5.	Collaborate with the National Security Staff and our OH partners to encourage a Presidential Decision Directive for OH.
2.2.6.	Provide support to the USDA Multi-Agency Coordination group.
2.3.3.	Participate in committees and meetings attended by State/ Tribal and local OH partners.
2.3.4.	Become educated and stay informed about program activities in State/ Tribal and local OH partner agencies.
2.4.1.	Develop a list of Universities with OH initiatives.
3.1.3.	Proactively provide jointly developed public information/fact sheets on new or emerging OH topics.
3.3.1.	Provide information and participate in events, conferences, meetings, and training courses sponsored by OH partners.
3.4.2.	Invite OH partners to present at meetings (USAHA, AAVLD, NIAA, etc.) APHIS VS traditionally attends.
4.1.3.	Create and promote OH developmental opportunities for APHIS VS employees.
4.2.3.	Initiate a OH category within the APHIS VS WAR (Weekly Activities Report) and catalog OH entries in Area biannual accomplishment reports and other reports.
5.2.4.	Incorporate APHIS VS subject matter experts into the Employee Qualification System database.
5.3.1.	Continue to include OH partners into the NAHMS needs-assessment process.
5.4.1.	Participate in Stone Mtn. Meeting work group to design and implement a self- assessment tool used by countries to implement OH approaches.

Year Three Implementation – 2012 Activities:

Task ID	Task Description
1.1.1.b.	Establish a permanent OH Coordination Office
1.3.1.	Develop APHIS VS policy and role in companion animal species.
1.3.2.	Develop APHIS VS policy and role in zoo and exotic animal species.
1.4.1.	Explore funding outside of USDA in support of OH-related research and development.
1.4.2.	Explore opportunities to identify research needs and address gaps with external USDA OH partners.
1.4.3.	Explore opportunities to identify research needs, address gaps, and help set research priorities with internal USDA partners.
2.1.2.	Establish a liaison position with US Partners responsible for international global health and capacity building to join our expertise in animal disease surveillance and control to human health's overlapping missions within global health.
2.1.5.	Establish a partnership with the Global Outbreak Alert and Response Network (GOARN) to link our technical expertise and outbreak response capabilities in animal health with that of the human health community to combat the international spread of outbreaks, ensuring that appropriate animal health technical assistance reaches affected states rapidly and contribute to long-term epidemic preparedness and capacity building.
2.1.7.	Integrate domestic surveillance and horizon scanning with the WHO-FAO Global Early Warning System (GLEWS) for major animal diseases, including zoonoses.
2.1.9.	Analyze Institute of Medicine Report (Sustaining Global Surveillance and Response) to determine areas where APHIS VS can align goals with.
2.3.5.	Empower APHIS VS Area personnel to work with OH partners to assess and provide guidance regarding the public and animal health impact of non- traditional pet species and animals in exhibition settings.
2.4.2.	Facilitate linkages between University and APHIS VS personnel working on OH activities.
2.4.3.	Support and formalize APHIS VS personnel teaching APHIS VS OH related topics in professional courses (i.e., veterinary schools, or other university courses).
3.1.1.	Ensure relevant APHIS VS reports and publications are available in the public domain and include highlights of APHIS VS OH activities.
3.1.2.	In conjunction with LPA (legislative and public affairs), respond to public domain mis-information on "hot topic" issues.
3.1.6.	Develop and maintain an APHIS VS OH website and facilitate the development of a global OH portal.
3.3.2.	Provide APHIS VS speakers at OH and industry forums; request OH partner representation at meetings and conferences traditionally attended/supported by APHIS VS.
3.3.3.	Include OH materials into current APHIS VS booth that is presented at meetings and conferences traditionally attended by APHIS VS.
3.3.5.	Promote OH at State/County fairs.
3.4.1.	Professional Development Staff to invite additional OH partners to APHIS VS training programs, both as participants and as lecturers.
4.1.1.	Align APHIS VS succession planning goals with VS 2015 OH goals.
4.1.2.	Develop policies and allow decision-making authority at Area and Regional APHIS VS offices to support investigation of locally important issues.
4.2.2.	Conduct surveys regarding current and potential future OH-related activities.
4.2.4.	Develop a webpage on the APHIS Intranet to post APHIS VS OH activities.
4.3.2.	Expand training program for APHIS VS employees in basic and applied epidemiology.
5.1.1.	Perform a collaborative needs assessment with our OH partners to determine the priorities and feasibility of an integrated zoonoses surveillance system
5.3.5.	Implement VS OH Investigation Response Programs, such as VS Assessment Teams.

Year Four Implementation – 2013 Activities:

Task ID	Task Description
1.1.3.	Conduct an initial workforce analysis to enhance our workforce capacity to support the needs of the OH community.
1.3.4.	Develop APHIS VS policy and role in environmental water quality (e.g., Nutrient enrichment or fecal contamination effects on water bodies and health).
1.3.5.	Develop APHIS VS policy concerning role in activities beyond infectious disease and animal/public/environmental health, e.g., social, economic health, toxicological impacts of natural disasters, domestic-wildlife spillovers.
2.2.1.	Develop MOU to establish a personnel 'exchange program' (IPA, details, etc) for employees to work with corresponding units on specific assignments.
2.2.2.	Coordinate with public health and other agencies to develop an integrated infrastructure for detecting and responding to zoonotic agents.
3.1.4.	Develop a science-based newsletter or bulletin highlighting recent and newsworthy case reports (e.g. "Animal Morbidity and Mortality Weekly Report").
3.2.1	Provide information to OH advocates.
3.3.4.	Co-sponsor and participate in OH symposia and conferences.
4.3.5.	Coordinate APHIS VS OH training initiatives with external OH training activities.
5.1.2.	Develop disease surveillance programs (infectious and non-infectious agents) with OH partners to include wildlife and environmental surveillance.
5.2.2.	Incorporate VS OH programs into the APHIS VS internal review process.
5.3.2.	Collaborate with OH partners in wildlife to support and participate in surveillance for wildlife diseases that impact OH (including the economy).
5.3.4.	Provide APHIS VS assistance for non-infectious Environment issues, such as nutrient management and environmental contamination.

Year Five Implementation – 2014 Activities:

Task ID	Task Description
2.1.4.	Expand existing evaluation tools such as the Performance of Veterinary Services assessment and Gap Analysis to evaluate human health capacity employing "OH" principals.
2.1.6.	Develop and market an International Strategic Plan for Combating Neglected Tropical Disease: An Agricultural Approach as part of the Presidents Global Health Initiative.
5.2.3.	Conduct external peer reviews with our OH partners to assess the efficacy of VS OH activities.

DISSEMINATION PLAN

The dissemination plan will highlight the ownership, distribution, and use of this document. Part of the dissemination plan will include internal and external review of the strategic plan.

MONITORING AND REVISING STRATEGIC PLAN

If an APHIS VS OH Coordination Office is established, one of its primary responsibilities would be monitoring the implementation and progress of this strategic plan. Should revisions become necessary, the OH Coordination Office will initiate a change control process to ensure all changes are properly reviewed, tracked, and documented prior to implementation.

SUMMARY

The needs of our stakeholders and partners require VS to be engaged in OH. The VS 2015 OH Working Group has proposed this strategic planning document as a roadmap to guide VS. Goals to reach the vision of VS 2015 OH have been identified and the specific tasks are presented in a step-wise fashion in the implementation section (above). The details of how the goals, objectives, and tasks coincide, along with the partners and timeframes, are presented in “*Appendix A*”. VS must develop and employ a business-like approach to achieve success in the 21st century, and this document provides the mechanism for VS success in the OH arena.

Appendix A: APHIS VS OH Goals, Objectives, Tasks, and Implementation Plan

Goal	Objective	Task	Partner(s)	Budget, Pilot, Project, Program, Process (IT, Business), or Policy ¹	Timeframe(Short Term = 1- 3 yrs; Long Term = > 3 yrs)	Initiation & Completion Years
1. Align APHIS VS policy, programs, and infrastructure with the VS 2015 OH vision.	1.1. Develop administrative systems, platforms, policies, and processes to support APHIS VS OH activities at the national, regional, and local levels.	1.1.1.a. Establish an interim OH Coordination Office		Budget TBD, Pilot	Short Term	2010-2011
		1.1.1.b. Establish a permanent OH Coordination Office		Budget TBD, Program	Short Term	2012-2016
		1.1.2. Develop IT infrastructure to allow sharing of data and info between VS divisions and between APHIS VS and OH partners.		Budget TBD, Process (Business & IT)	Short Term	2011-2013
		1.1.3. Conduct an initial workforce analysis to enhance our workforce capacity to support the needs of the OH community.		Budget TBD, Project	Short Term	2013-2016
		1.1.4. Evaluate existing programs and leverage them to the extent possible to accomplish APHIS VS OH initiatives.		Budget TBD, Project	Short Term	2011-2016

¹**Budget:** Overall funding to complete this task.

Pilot: Short Term temporary effort used to prove a concept.

Project: A temporary endeavor undertaken to create a unique product, service or result.

Program: Is implemented to create both the structures and practices to guide and provide senior level leadership, oversight and control.

Process: Describes the act of taking something through an established and usually routine set of procedures (IT and/or Business).

Policy: A deliberate plan of action to guide decisions and achieve rational outcomes can be understood as political, management, financial and administrative mechanisms arrange to achieve explicit goals.

Strategic Plan for Implementing
OH Activities within USDA APHIS VS

Goal	Objective	Task	Partner(s)	Budget, Pilot, Project, Program, Process (IT, Business), or Policy ¹	Timeframe(Short Term = 1- 3 yrs; Long Term = > 3 yrs)	Initiation & Completion Years
	1.2. Define how APHIS VS will coordinate OH activities with our respective OH partners at the State and Federal level.	1.2.1. Establish policies for national involvement in incidents involving zoonotic agents, including which types of events APHIS VS will provide leadership at and when it will assist partner agencies and stakeholders, identification of the triggers for involvement, scope of interaction, and prioritization for APHIS VS involvement.		Budget TBD, Policy and Program	Short Term	2010-2011
		1.2.2. Establish policies for regional and area offices (or equivalent) to support OH activities that focus on high-consequence locally important issues.		Budget TBD, Policy	Short Term	2010-2011
		1.2.3. Develop templates, standard operating procedures, communication procedures, occupational protection guidance, and role & responsibility flowcharts with OH partners for use when working with a zoonotic agent.		Budget TBD, Policy and Process (Business)	Short Term	2008-2013 (Completed for one pathogen; SIV)
		1.2.4. Develop MOU or MOA with CDC and other OH agencies to share human and animal data on diseases of mutual interest.		Budget TBD, Policy and Process (Business)	Long Term	2011-2013

Strategic Plan for Implementing
OH Activities within USDA APHIS VS

Goal	Objective	Task	Partner(s)	Budget, Pilot, Project, Program, Process (IT, Business), or Policy ¹	Timeframe(Short Term = 1- 3 yrs; Long Term = > 3 yrs)	Initiation & Completion Years
	1.3. Define APHIS VS' role in non-traditional/non-program OH areas.	1.3.1. Develop APHIS VS policy and role in companion animal species.		Budget TBD, Policy	Short Term	2012-2014
		1.3.2. Develop APHIS VS policy and role in zoo and exotic animal species.	APHIS AC	Budget TBD, Policy	Short Term	2012-2014
		1.3.3. Develop APHIS VS policy and role in pre-harvest food safety.	USDA FSIS, HHS FDA	Budget TBD, Policy	Short Term	2010-2011
		1.3.4. Develop APHIS VS policy and role in environmental water quality (e.g., Nutrient enrichment or fecal contamination effects on water bodies and health).	USDA NRCS, EPA	Budget TBD, Policy	Short Term	2013-2015
		1.3.5. Develop APHIS VS policy concerning role in activities beyond infectious disease and animal/public/environmental health, e.g., social, economic health, toxicological impacts of natural disasters, domestic-wildlife spillovers.	HHS	Budget TBD, Policy	Long Term	2013-2015
		1.3.6. Develop APHIS VS policy concerning role in wildlife species.	APHIS Wildlife Services	Budget TBD, Policy	Short Term	2011-2013

Strategic Plan for Implementing
OH Activities within USDA APHIS VS

Goal	Objective	Task	Partner(s)	Budget, Pilot, Project, Program, Process (IT, Business), or Policy ¹	Timeframe(Short Term = 1- 3 yrs; Long Term = > 3 yrs)	Initiation & Completion Years
	1.4. Strengthen the role of APHIS VS as a partner in OH for supporting scientific research and development, including identifying internal and external OH research needs and gaps.	1.3.7. Harmonize diagnostic laboratory testing protocols and communication between animal health and public health laboratories regarding standardization of methods, tech transfer, surge capacity, etc.	HHS CDC, ICLN, NAHLN and other lab networks	Budget TBD, Policy, Process (Business & IT), Program	Short and Long Term	2011-2016
		1.4.1. Explore funding outside of USDA in support of OH-related research and development.	HHS NIH, DOD DTRA	Budget TBD, Policy and Process (Business)	Short and Long Term	2012-2016
		1.4.2 Explore opportunities to identify research needs and address gaps with external USDA OH partners.	NIH, DOD, Universities, etc.	Budget TBD, Policy and Process (Business)	Short and Long Term	2012-2016
		1.4.3. Explore opportunities to identify research needs, address gaps, and help set research priorities with internal USDA partners.	ARS, FSIS, NIFA, etc.	Budget TBD, Policy and Process (Business)	Short and Long Term	2012-2016
2. Build new collaborations and partnerships, and sustain existing relationships in the OH Community.	2.1. Maintain existing collaborations and build new partnerships with international agencies and	2.1.1. Partner with the Global Early Warning System for Major Animal Disease, including zoonoses (GLEWS) to improve zoonotic disease surveillance and use the data to deploy VS Assessment Teams.	FAO Crisis Management Center	Budget TBD, Policy, Process (Business & IT), Project	Short and Long Term	2008-2011

Strategic Plan for Implementing
OH Activities within USDA APHIS VS

Goal	Objective	Task	Partner(s)	Budget, Pilot, Project, Program, Process (IT, Business), or Policy ¹	Timeframe(Short Term = 1- 3 yrs; Long Term = > 3 yrs)	Initiation & Completion Years
	organizations.	2.1.2. Establish a liaison position with US Partners responsible for international global health and capacity building to join our expertise in animal disease surveillance and control to human health's overlapping missions within global health.	State Department Office of International Health and Biodefense and USAID Bureau of Global Health and HHS Global Health	Budget TBD, Policy and Process (Business)	Long Term	2012-2014
		2.1.3. Participate in the health committee of the North American Leaders Summit which consists of 17 tasks assigned to APHIS VS.	North American Leaders Summit partners in US (HHS) Mexico and Canada	Budget TBD, Policy and Projects	Short and Long Term	2009-2011
		2.1.4. Expand existing evaluation tools such as the Performance of Veterinary Services assessment and Gap Analysis to evaluate human health capacity employing "OH" principals	OIE and WHO	Budget TBD, Use existing avian influenza funding	Short and Long Term	2014-2016

Goal	Objective	Task	Partner(s)	Budget, Pilot, Project, Program, Process (IT, Business), or Policy ¹	Timeframe(Short Term = 1- 3 yrs; Long Term = > 3 yrs)	Initiation & Completion Years
		2.1.5. Establish a partnership with the Global Outbreak Alert and Response Network (GOARN) to link our technical expertise and outbreak response capabilities in animal health with that of the human health community to combat the international spread of outbreaks, ensuring that appropriate animal health technical assistance reaches affected states rapidly and contribute to long-term epidemic preparedness and capacity building.	WHO	Budget TBD, Policy and Process (Business & IT)	Long Term	2012-2015
		2.1.6 Develop and market an International Strategic Plan for Combating Neglected Tropical Disease: An Agricultural Approach as part of the President's Global Health Initiative.	FAO, WHO and OIE WH NSS, DOS and USAID	Budget TBD, Project and Program	Short and Long term	2014-2016
		2.1.7 Integrate domestic surveillance and horizon scanning with the WHO-FAO Global Early Warning System (GLEWS) for major animal diseases, including zoonoses.	FAO, WHO and OIE	Budget TBD, Process (Business & IT) and Program	Long Term	2012-2014

Strategic Plan for Implementing
OH Activities within USDA APHIS VS

Goal	Objective	Task	Partner(s)	Budget, Pilot, Project, Program, Process (IT, Business), or Policy ¹	Timeframe(Short Term = 1- 3 yrs; Long Term = > 3 yrs)	Initiation & Completion Years
		2.1.8 Coordinate USDA and CDC efforts with OIE and FAO; look at how to support CDC	CDC	Budget TBD, Policy and Process (Business)	Short Term	2008-2013
		2.1.9 Analyze Institute of Medicine Report (Sustaining Global Surveillance and Response) to determine areas where APHIS VS can align goals.		Budget TBD, Policy and Program	Short Term	2012-2014
		2.1.10 Advance the President's international trade initiative specifically for animal products.		Budget TBD, Policy and Program	Long Term	2011-2014
		2.1.11. Provide support to establish organizational structures that will formalize global cooperation in OH.	FAO, OIE, WHO, United Nations Systems Influenza Coordination, CDC, EU	Budget TBD, Policy, Process (Business), Program	Long Term	2011-2016
		2.1.12. Support and contribute to the development of a global OH Business plan.	World Bank, FAO, WHO, OIE, Wildlife Conservation Society, United Nations Systems Influenza Coordination, government and universities.	Budget TBD, Program	Long Term	2011-2013

Strategic Plan for Implementing
OH Activities within USDA APHIS VS

Goal	Objective	Task	Partner(s)	Budget, Pilot, Project, Program, Process (IT, Business), or Policy ¹	Timeframe(Short Term = 1- 3 yrs; Long Term = > 3 yrs)	Initiation & Completion Years
	2.2. Maintain existing collaborations and build new partnerships with federal agencies and organizations.	2.2.1. Develop MOU to establish a personnel 'exchange program' (IPA, details, etc) for employees to work with corresponding units on specific assignments.	HHS (CDC, FDA), DOI (USGS, FWS), NPS, etc.	Budget TBD, Policy, Process (Business), Program	Short and Long Term	2013-2016
		2.2.2. Coordinate with public health and other agencies to develop an integrated infrastructure for detecting and responding to zoonotic agents.	HHS, NIH, etc.	Budget TBD, Policy, Process (Business), Program	Short and Long Term	2013-2016
		2.2.3. Develop a productive collaboration and sustained partnerships with Federal OH partners.	CDC, FDA, DHS, NIH Centers of Excellence	Budget TBD, Policy, Process (Business), Program	Short and Long Term	2011-2016
		2.2.4. Develop a productive collaboration and sustained partnership regarding pre-harvest food safety initiatives, including anti-microbial resistance.	FSIS, FDA, CDC, etc.	Budget TBD, Policy, Process (Business), Program	Short and Long Term	2011-2013
		2.2.5. Collaborate with the National Security Staff and our OH partners to encourage a Presidential Decision Directive for OH.	WH, DOD, HHS CDC, EPA, DOI, State, USAID	Budget TBD, Policy and Program	Short and Long Term	2011-2013

Strategic Plan for Implementing
OH Activities within USDA APHIS VS

Goal	Objective	Task	Partner(s)	Budget, Pilot, Project, Program, Process (IT, Business), or Policy ¹	Timeframe(Short Term = 1- 3 yrs; Long Term = > 3 yrs)	Initiation & Completion Years
		2.2.6. Provide support to the USDA Multi-Agency Coordination group.	USDA MRP, Food Safety, APHIS, NIFA, FAS, ERS, OC	Budget TBD, Policy and Program	Short and Long Term	2011-2012
		2.2.7. Work with the Epi-X editorial board to expand Epi-X access to additional Federal and State animal health agencies	HHS CDC, SAHO, AALVD	Budget TBD, Policy, Process (Business & IT), Program	Short and Long Term	2008-2012
	2.3. Build new partnerships and maintain existing collaborations with State and local level agencies and organizations.	2.3.1. Empower APHIS VS Area personnel to establish relationships and maintain collaborations with State/ Tribal OH partners.	State Public Health, State Wildlife, State Environmental Protection, etc.	Budget TBD, Policy	Short and Long Term	2010-2011
		2.3.2. Empower APHIS VS Area personnel to establish relationships and maintain collaborations with local OH partners.	Local Public Health, Local Environmental Agency	Budget TBD, Policy and Program	Short and Long Term	2010-2011
		2.3.3. Participate in committees and meetings attended by State/ Tribal and local OH partners.	State Public Health agency, State Wildlife agency,	Budget TBD, Policy and Program	Short and Long Term	2011-2012
		2.3.4. Become educated and stay informed about program activities in State/ Tribal and local OH partner agencies.	State, local and tribal public health and agricultural agencies and organizations	Budget TBD,	Short and Long Term	2011-2012

Strategic Plan for Implementing
OH Activities within USDA APHIS VS

Goal	Objective	Task	Partner(s)	Budget, Pilot, Project, Program, Process (IT, Business), or Policy ¹	Timeframe(Short Term = 1- 3 yrs; Long Term = > 3 yrs)	Initiation & Completion Years
		2.3.5. Empower APHIS VS Area personnel to work with OH partners to assess and provide guidance regarding the public and animal health impact of non-traditional pet species and animals in exhibition settings.	Animal Care, Zoos, NASPHV, AAZA, Animal Sanctuaries, Animal Rehabilitators, etc.	Budget TBD, Policy and Projects	Short Term	2012-2013
	2.4. Build new partnerships and maintain existing collaborations with Universities and the academic community.	2.4.1. Develop a list of Universities with OH initiatives.	TBD based on outcomes of this research	Budget TBD, Project	Short Term	2011-2012
		2.4.2. Facilitate linkages between University and APHIS VS personnel working on OH activities.	TBD based on outcomes of this research	Budget TBD, Policy and Process (Business)	Short Term	2012-2013
		2.4.3 Support and formalize APHIS VS personnel teaching APHIS VS OH related topics in professional courses (i.e., veterinary schools, or other university courses.	USAHA, NIAA, CSTE, AVMA, AMA, AAVMC, NMPF and other industry and producer associations	Budget TBD, Policy, Process (Business) and Program	Long Term	2012-2014
		2.5. Build new partnerships and maintain existing collaborations with the private sector and non-governmental organizations.	2.5.1. Partner with the OH Commission.		Budget TBD, Project	Short Term
		2.5.2. Coordinate interagency activities regarding the proposed Institute of Medicine OH Study.		Budget TBD, Project	Short Term	2009-2011

Strategic Plan for Implementing
OH Activities within USDA APHIS VS

Goal	Objective	Task	Partner(s)	Budget, Pilot, Project, Program, Process (IT, Business), or Policy ¹	Timeframe(Short Term = 1- 3 yrs; Long Term = > 3 yrs)	Initiation & Completion Years
3. Spearhead outreach and communications to build credibility, trust, and respect in the OH community.	3.1. Develop a VS 2015 OH communication strategy targeting the public and other stakeholders outside of APHIS VS.	3.1.1. Ensure relevant APHIS VS reports and publications are available in the public domain and include highlights of APHIS VS OH activities.	USDA OC and APHIS LPA	Budget TBD, Policy, Process (Business & IT), Program	Short and Long Term	2012-2014
		3.1.2. In conjunction with LPA (legislative and public affairs), respond to public domain mis-information on “hot topic” issues.	APHIS LPA, ProMed, etc	Budget TBD, Policy and Process (Business)	Short and Long Term	2012-2014
		3.1.3. Proactively provide jointly developed public information/fact sheets on new or emerging OH topics.	APHIS LPA, HHS CDC, FDA, NIH, EPA, etc	Budget TBD, Policy, Process (Business)	Short and Long Term	2011-2013
		3.1.4. Develop a science-based newsletter or bulletin highlighting recent and newsworthy case reports (e.g. “Animal Morbidity and Mortality Weekly Report”).	USDA OC, APHIS LPA	Budget TBD, Policy, Process (Business), Program	Short and Long Term	2013-2016
		3.1.5. Promote the publication of OH findings, including proof of concept studies, in peer reviewed journals.	USDA OC, APHIS LPA	Budget TBD, Policy, Process (Business), Program	Short and Long Term	2008-2014
		3.1.6. Develop and maintain an APHIS VS OH website and facilitate the development of a global OH portal.	USDA OC, APHIS LPA	Budget TBD, Policy, Process (Business & IT)	Short and Long Term	2012-2014

Strategic Plan for Implementing
OH Activities within USDA APHIS VS

Goal	Objective	Task	Partner(s)	Budget, Pilot, Project, Program, Process (IT, Business), or Policy ¹	Timeframe(Short Term = 1- 3 yrs; Long Term = > 3 yrs)	Initiation & Completion Years
	3.2. Develop a VS 2015 OH communication strategy to inform Congress of APHIS VS accomplishments	3.2.1 Provide information to OH advocates.	AVMA GRD, Animal Agriculture Coalition	Budget TBD, Policy, Project, Process (Business)	Short and Long Term	2013-2016
		3.2.2. Identify additional constituent groups to advocate OH principals and USDA's role in them.		Budget TBD, Policy, Project, Process (Business)	Short and Long Term	2010-2014
	3.3 Increase the presence of APHIS VS OH at events, conferences, meetings, and training courses. (Just show up.)	3.3.1 Provide information and participate in events, conferences, meetings, and training courses sponsored by OH partners.	CDC monthly zoonoses conference calls, State Zoonoses conferences. CSTE meetings, NASPHV meetings and list serve.	Budget TBD, Project	Short and Long Term	2011-2012
		3.3.2. Provide APHIS VS speakers at OH and industry forums.	USDA OC, APHIS LPA	Budget TBD, Project, Program	Short and Long Term	2012-2013
		3.3.3. Include OH materials into current APHIS VS booth that is presented at meetings and conferences traditionally attended by APHIS VS.	AAVLD, NIAA, etc.	Budget TBD, Project, Program	Short and Long Term	2012-2013
		3.3.4. Co-sponsor and participate in OH symposia and conferences.	NC One Medicine Symposium, ICEID	Budget TBD, Project, Program	Short and Long Term	2013-2016

Strategic Plan for Implementing
OH Activities within USDA APHIS VS

Goal	Objective	Task	Partner(s)	Budget, Pilot, Project, Program, Process (IT, Business), or Policy ¹	Timeframe(Short Term = 1- 3 yrs; Long Term = > 3 yrs)	Initiation & Completion Years
	3.4 Increase presence of OH partners at meetings and conferences traditionally attended and supported by APHIS VS.	3.3.5. Promote OH at State/County fairs.	LPA booth	Budget TBD, Project, Program	Short and Long Term	2012-2013
		3.4.1. Professional Development Staff to invite additional OH partners to APHIS VS training programs, both as participants and as lecturers.		Budget TBD, Project, Program	Short and Long Term	2012-2015
		3.4.2. Invite OH partners to present at meetings (USAHA, AAVLD, NIAA, etc.) APHIS VS traditionally attends.	CDC, State PH	Budget TBD, Project, Program	Short and Long Term	2011-2013
4. Transform the APHIS VS culture and workforce, and build new skill sets to support and integrate the VS 2015 OH principles.	4.1 Encourage APHIS VS employees to interface with OH Partners.	4.1.1 Align APHIS VS succession planning goals with VS 2015 OH goals.		Budget TBD, Policy, Project	Short and Long Term	2012-2013
		4.1.2. Develop policies and allow decision-making authority at Area and Regional APHIS VS offices to support investigation of locally important issues.	OH Partners	Budget TBD, Policy, Program, Process (Business)	Short and Long Term	2012-2014
		4.1.3. Create and promote OH developmental opportunities for APHIS VS employees.	OH Partners	Budget TBD, Policy, Pilot, Program, Process (Business & IT)	Short and Long Term	2011-2013

Goal	Objective	Task	Partner(s)	Budget, Pilot, Project, Program, Process (IT, Business), or Policy ¹	Timeframe(Short Term = 1- 3 yrs; Long Term = > 3 yrs)	Initiation & Completion Years
	4.2 Inform our APHIS VS workforce and assess progress toward the APHIS VS OH goals.	4.2.1 Develop a VS OH Communication Plan.	LPA, USDA OC	Budget TBD, Policy, Project, Process (Business & IT)	Short and Long Term	2010-2012
		4.2.2. Conduct surveys regarding current and potential future OH-related activities.	AEO's (Area Epidemiology Officers) and AEC's (Area Emergency Coordinators) laboratory directors, APHIS VS Units or Programs	Budget TBD, Project, Process (Business & IT)	Short and Long Term	2012-2014
		4.2.3. Initiate a OH category within the APHIS VS WAR (Weekly Activities Report) and catalog OH entries in Area biannual accomplishment reports and other reports.	LPA	Budget TBD, Policy, Project, Process (Business & IT)	Short and Long Term	2011-2012
		4.2.4. Develop a webpage on the APHIS Intranet to post APHIS VS OH activities.	LPA	Budget TBD, Project, Process (Business & IT)	Short and Long Term	2012-2014
	4.3 Build new skill sets in APHIS VS workforce to prepare them for working in the OH.	4.3.1. Create One-Health Training and Development courses for APHIS VS employees.		Budget TBD, Policy, Program, Process (Business & IT)	Short and Long Term	2010-2012

Goal	Objective	Task	Partner(s)	Budget, Pilot, Project, Program, Process (IT, Business), or Policy ¹	Timeframe(Short Term = 1- 3 yrs; Long Term = > 3 yrs)	Initiation & Completion Years
		4.3.2. Expand training program for APHIS VS employees in basic and applied epidemiology.	CDC Epidemic Investigation Service (EIS), Universities	Budget TBD, Policy, Program, Process (Business)	Short and Long Term	2012-2015
		4.3.5. Coordinate APHIS VS OH training initiatives with external OH training activities.	OH Partners	Budget TBD, Policy, Program, Process (Business)	Short and Long Term	2013-2016
5. Apply our unique competencies to support and enhance the OH community.	5.1 Develop, link and integrate human and animal surveillance systems into a coordinated network of networks.	5.1.1. Perform a collaborative needs assessment with our OH partners to determine the priorities and feasibility of an integrated zoonoses surveillance system.	OH Partners	Budget TBD, Policy, Program, Process (Business & IT)	Short and Long Term	2012-2013
		5.1.2. Develop disease surveillance programs (infectious and non-infectious agents) with OH partners to include wildlife and environmental surveillance.	OH Partners	Budget TBD, Policy, Program, Process (Business & IT)	Short and Long Term	2013-2016
	5.2 Promote and evaluate APHIS VS OH activities.	5.2.1. Actively support requests for domestic OH investigations and provide VS personnel, resources, and expertise (e.g. Epi-Aid, EQS, VSAT).	OH Partners	Budget TBD, Policy, Program, Process (Business & IT)	Short and Long Term	2010-2012
		5.2.2. Incorporate VS OH programs into the APHIS VS internal review process.		Budget TBD, Policy, Program, Process (Business)	Short and Long Term	2013-2016

Strategic Plan for Implementing
OH Activities within USDA APHIS VS

Goal	Objective	Task	Partner(s)	Budget, Pilot, Project, Program, Process (IT, Business), or Policy ¹	Timeframe(Short Term = 1- 3 yrs; Long Term = > 3 yrs)	Initiation & Completion Years
		5.2.3. Conduct external peer reviews with our OH partners to assess the efficacy of VS OH activities.	APHIS Units and Programs, OH Partners	Budget TBD, Policy, Program, Process (Business)	Short and Long Term	2014-2016
		5.2.4. Incorporate APHIS VS subject matter experts into the Employee Qualification System database.		Budget TBD, Policy, Program, Process (Business & IT)	Short and Long Term	2011-2012
	5.3 Apply unique APHIS VS competencies in surveillance and epidemiology to OH opportunities.	5.3.1. Continue to include OH partners into the NAHMS needs-assessment process.	OH Partners	Budget TBD, Policy, Program, Process (Business & IT)	Short and Long Term	2011-2014
		5.3.2. Collaborate with OH partners in wildlife to support and participate in surveillance for wildlife diseases that impact OH (including the economy).	OH Partners, APHIS Wildlife Services, and DOI	Budget TBD, Policy, Program, Process (Business & IT)	Short and Long Term	2013-2016
		5.3.3. Identify the State Veterinary Diagnostic Laboratories that are working on selected or prioritized zoonotic diseases and determine how APHIS VS can help coordinate surveillance efforts.	NAHLN, AAVLD	Budget TBD, Project	Short Term	2010-2011

Strategic Plan for Implementing
OH Activities within USDA APHIS VS

Goal	Objective	Task	Partner(s)	Budget, Pilot, Project, Program, Process (IT, Business), or Policy ¹	Timeframe(Short Term = 1- 3 yrs; Long Term = > 3 yrs)	Initiation & Completion Years
		5.3.4. Provide APHIS VS assistance for non-infectious environment issues, such as nutrient management and environmental contamination.	USDA Natural Resources Conservation Services, EPA, State and Local Environmental Health	Budget TBD, Policy, Project, Program, Process (Business & IT)	Short and Long Term	2013-2016
		5.3.5. Implement VS OH Investigation Response Programs, such as VS Assessment Teams.	OH Partners	Budget TBD, Policy, Program, Process (Business & IT)	Short and Long Term	2012-2014
	5.4. Assist in the development or modification of animal health assessment tools to include OH.	5.4.1. Participate in Stone Mtn. Meeting work group to design and implement a self-assessment tool used by countries to implement OH approaches.	OIE, WHO, CDC, FAO, DOI	Budget TBD, Project, Program	Short and Long Term	2011-2013

Appendix B: Values

INTRODUCTION

APHIS VS values science-based problem solving and diversity in opinions, beliefs and perspectives. Specific to OH, APHIS VS values protecting and improving the health of animals (including humans) and the well-being of the ecological, political, economic and social systems surrounding them. The figure in Appendix D illustrates one example of "OH Interactions" related to emerging infectious zoonotic diseases.

APHIS VS recognizes the interactions illustrated in Appendix D as the historical basis for the development of current OH concepts and programs. However, we choose to be aware of the broader spectrum of OH, including adverse health events from non-infectious causes. APHIS VS also understands that the ability to promote OH is dependent upon the resources and advantages provided by healthy economies, vital ecosystems and sound political and social systems. As such, we consider OH to include societal health (incorporating political and economic aspects) in addition to animal health, public health, and environmental health, and believe a diverse, interdisciplinary approach is needed to protect and improve health with efficacy and efficiency. APHIS VS values diverse opinions, beliefs and perspectives in the world we serve and strives for scientific-based OH approaches.

ANIMAL HEALTH

In the context of the VS 2015 OH initiatives, APHIS VS' policies and activities should optimize economical and sensible management of all animal species. APHIS VS is the leading expert on animal agriculture and we will broaden the scope of our mission in the future to provide expertise to protect and optimize health of other animals. APHIS VS will actively seek to support and partner with agencies and other stakeholders whose primary missions address wildlife, food safety, animal care, and other components of OH.

APHIS VS remains the primary Federal regulatory agency responsible for:

- Infectious diseases of Livestock (cattle, bison, domestic swine, sheep, goats, equine, llamas, alpacas, captive cervids)
- Infectious diseases of Poultry
- Infectious diseases of Aquaculture
- All animal biologics
- Livestock, poultry, and aquaculture (with DOI and NOAA) veterinary diagnostics

APHIS VS will engage with OH partners to address, for example:

- Emergency preparedness (prevention, protection, response, and recovery) against new or emerging threats involving or impacting animals

- Non-infectious health related issues, e.g. all hazards (CBRN), toxicological, parasitological, nutritional, genetic, reproductive, gastrointestinal, etc. as they pertain to livestock, poultry, and aquaculture
- Wildlife health issues to mitigate interspecies transmission of diseases between animal reservoirs
- Companion animal health issues to mitigate interspecies transmission of diseases from companion animal movement, e.g. importation of exotic animals, and melamine contamination of animal food
- Zoo animal health issues to mitigate interspecies transmission of diseases from zoo animals, and enhance surveillance and communication of diagnostic results or clinical observations from animal health professionals working with zoo species
- Captive exotic animal health issues to mitigate interspecies transmission of diseases between animal reservoirs
- Laboratory animal health issues by protecting domestic animals from the spread of diseases associated with the raising and selling of laboratory animal species
- Economic adulteration of animal feed or human food through monitoring, surveillance, and assisting with policy development toward prevention

PUBLIC HEALTH

In the context of the VS 2015 OH initiatives, APHIS VS considers public health to include policies and activities that maintain the general health of a community, including the practice and study of ways to preserve and improve it. APHIS VS will actively seek to support and partner with agencies and other stakeholders whose primary missions are to protect public health. APHIS VS will broaden the scope of our mission to engage with public health partners in a variety of settings, including health education, sanitation, control of diseases, and pollution.

APHIS VS will engage with public health partners to help them address, for example:

- Zoonotic disease in human populations by collaborating with accredited veterinarians to collect data on clinical signs in animal settings, conducting animal disease surveillance, and responding to zoonotic disease outbreaks in animals
- Food security by monitoring pre-harvest activities on the farm and investigating residue violations
- Public health impacts of on-farm practices
- Issues surrounding antimicrobial resistance, including the use and impact of antimicrobials in animal production

APHIS VS will engage with community health and other public health partners to help them address, for example:

- Human-animal bond

- Psychological impacts related to mass destruction and/or depopulation or mortality of animals

APHIS VS will educate its work force about public health, occupational health, and a healthy work place.

- Availability of web-based information pertaining to occupational hazards for animal health related occupations (e.g. OSHA, NIOSH, CDC, APHIS, NASPHV).
- Coordinate with APHIS Workplace Resolution and Wellness to identify gaps in educational programs.

ENVIRONMENTAL HEALTH

In the context of the VS 2015 OH initiatives, APHIS VS considers environmental health to be policies and activities that preserve, improve, and minimize risks to the environment. APHIS VS will actively seek to support and partner with agencies and other stakeholders whose primary missions are to protect environmental health. APHIS VS will broaden the scope of our mission to collaborate with environmental health partners in a variety of settings including the monitoring of water and air quality, and pest control.

APHIS VS will engage with environmental health partners to help them address, for example:

- Water and air pollution involving animals by monitoring animals and animal settings for water and air contaminants
- Soil pollution involving carcass disposal by educating animal owners about proper animal waste disposal and monitoring for improper disposal practices
- Climate change by monitoring animals for affects of climate changes, e.g. changing ambient temperatures, storm patterns, disease vectors, etc.
- Nutrient management balance on concentrated animal feeding operations by educating operators about proper animal waste disposal and sustainable practices

SOCIETAL HEALTH

The World Health Organization defines health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. Agriculture and USDA improve our lives every day in every way. Agriculture not only improves our physical health by producing the world's food, fiber and materials for shelter; but it is also an important source of livelihood in both developing and under-developing countries.

Rural America serves as a basic building block for the rest of the economy. American agricultural products represent a trade surplus, which provides \$22.5 billion to the US economy. Moreover, estimates show that agriculture is responsible for one out of every twelve jobs in the nation. And, USDA is at the forefront of assisting rural communities to create wealth so they are

self-sustaining, repopulating and thriving economically. In this context of societies' diverse functions and architecture, e.g. economic, educational, political, and cultural, we help protect, defend, nurture, sustain, and grow our human and animal populations in a safe environment.

CONVERGENCE OF ANIMAL HEALTH, PUBLIC HEALTH, AND ENVIRONMENTAL HEALTH

Human health, animal health, and environmental health are inextricably connected. In the context of the VS 2015 OH initiatives, APHIS VS considers the convergence of the three sectors of OH to be issues or activities that have a combined effect on animal health, public health and/or the environment. APHIS VS will broaden the scope of our mission to collaborate with OH partners in a variety of settings that require a multidisciplinary approach to preserve, maintain, or reduce risks collectively to animals, people, and the environment.

APHIS VS will collaborate with OH partners in a multidisciplinary approach to address, for example:

- Strategies for enhancing collaboration between human and veterinary medical professions in medical education, clinical care, public health, and biomedical research by leading and/or contributing to national and international discussions about OH.
- Emerging OH issues by spearheading the formation of ad hoc working groups including representatives of all related agencies
- Emerging OH issues impacting animals by encouraging and supporting the establishment of a joint OH working group with Federal and State government agencies with authority for animals (e.g., livestock and poultry, wildlife, companion animals, zoo and captive animals, etc.)
- Joint investigations at the animal-human interface

Appendix C: Strengths, Weaknesses, Opportunities, and Threats (SWOT)

INTRODUCTION

The following SWOT analysis is used to identify the positive and negative influences on the APHIS VS organization that will affect our ability to achieve the VS 2015 vision. These influences can either be internal (strengths and weaknesses), or external (opportunities and threats). Each of these influences is further described below.

In the context of VS 2015 OH, the objectives of APHIS VS are to expand the scope of activities related to health issues affecting all animal species, and to develop strong and productive working relationships and partnerships with other OH stakeholders involved in animal, human and environmental health.

Below is a brief description of Strengths, Weaknesses, Opportunities and Threats facing APHIS VS as we create a more unified “OH” approach to our mission.

APHIS VS STRENGTHS (the current attributes of APHIS VS that are helpful in achieving OH objectives):

APHIS VS Business Advantages:

- Skilled workforce with competencies in One Health
- National network of experts in veterinary medicine, animal health technology, epidemiology, emergency preparedness and response, veterinary diagnostics, veterinary biologics
- US Animal Health Protection Act that embraces all species and references public health
- USDA and APHIS sister agencies with expertise in wildlife biology, companion animals, safety of meat, poultry, and eggs, animal health research
- Existing network of veterinary laboratories, i.e. the National Animal Health Laboratory Network, for addressing surveillance and emergency situations (proven surge capacity)
- Veterinary laboratory infrastructure
- Fully integrated programs and workforce synergy with State Animal Health Officials
- Partnerships with subset of veterinary practitioners through the APHIS VS National Veterinary Accreditation Program
- Partnerships with the private sector (industry, commodity groups) and non-governmental organizations
- Access and availability to Federal agency OH partners, e.g. U.S. Department of Health and Human Services, US Environmental Protection Agency, US Department of Interior, US Department of Homeland Security, etc.
- Voting membership in the World Organization for Animal Health (OIE)

- APHIS employees embedded in OIE and the Food and Agriculture Organization's crisis management center and the emergency prevention system for transboundary animal and plant pests and diseases
- VS employees embedded in CDC and DOD NCMI.
- OIE Collaborating Centers include the National Veterinary Services Laboratories, the Centers for Epidemiology and Animal Health, and the Center for Veterinary Biologics
- The National Animal Health Monitoring System
- Nationally distributed APHIS VS infrastructure
- On-farm presence, trust, respect, and the ability to communicate with producers

APHIS VS Core Competencies:

- Monitoring and surveillance of livestock and poultry diseases, movement of animals and animal products, and regulatory compliance
- Animal disease diagnostics, epidemiology, disease control, and vaccinology
- Emergency preparedness and response
- Population medicine and animal husbandry
- Zoonoses
- Economics
- Food safety
- Parasitology
- Human-animal bond
- Nutrition
- Humane handling and euthanasia
- Risk assessment
- Systems approaches
- Context and gathering of evidence
- Comparative medicine
- Animal traceability
- Pathology

Resources that APHIS VS currently has that will be helpful in achieving our objectives in OH:

- Funding through the agriculture appropriations committee of Congress (e.g., biosecurity line item to APHIS, select agents, special appropriations, etc.)
- Industry supported animal disease programs with funding designated by animal disease
- User fees, although fees are insufficient to recover costs.
- Interagency agreements with CDC
- Well integrated work force with our State Animal Health Official partners
- Contributions by universities (personnel, research findings)
- Contributions by industry, e.g. Joint Institute for Food Safety and Applied Nutrition.

What APHIS VS Does Well:

- Proven track record of developing and implementing science-based programs
- Monitor national livestock herds and poultry flocks for select diseases
- Control or eradicate select livestock and poultry diseases
- Monitor safety and efficacy of veterinary biologics
- Collaborate with State Animal Health Officials
- Promote marketability of livestock and poultry, and their products
- Respond to emergency disease situations; mobilizing field forces and laboratory support systems quickly and efficiently; and effectively implementing the National Incident Management Systems
- Develop strong working relationships with our stakeholders through various organizations, e.g. US Animal Health Association, American Association of Veterinary Laboratory Diagnosticians, National Institute for Animal Agriculture, and others
- Share scientific information, technical expertise, and positively influence international animal health standards
- Provide expertise and training through OIE collaborating centers
- Develop and nurture effective partnerships with universities

APHIS VS WEAKNESSES (APHIS VS attributes that may be harmful, or hinder the agency in achieving OH objectives):

Areas APHIS VS is Avoiding:

- Expanding the APHIS VS role beyond infectious diseases of livestock and poultry. This may be in part because of a lack of clear directives and understanding about the APHIS VS interface with the other OH components
- Controversy with regard to expanded roles, responsibilities and authority for One Health
- Paradigm shifts of APHIS VS culture from a focus on the health and marketability of livestock/poultry to the health of people, animals, the environment, and society.

Where APHIS VS Lacks Resources:

- Personnel to coordinate APHIS VS OH activities
- Personnel and information technology infrastructure to track trend data and share information among stakeholders
- Agriculture biosurveillance communications, i.e. coordinated information management system
- Access to existing human health data streams
- Implementation of integrated surveillance
- Financial support for the increased APHIS VS role in OH

What APHIS VS Does Poorly:

- Communicate the APHIS VS commitment to OH
- Solicit APHIS VS employee support for OH initiatives
- Engage external stakeholders into the OH strategic process
- Conduct and coordinate zoonotic disease surveillance
- Properly inspect animals or food products coming into the US at ports of entry because of inferior infrastructure and/or inadequate procedures
- Engage in a unified approach with other state and federal agencies, e.g. USDA Food Safety and Inspection Service, US Food and Drug Administration, State departments of agriculture meat inspection and food inspection programs, etc.
- Pursue opportunities to promote the APHIS VS capabilities
- Capture strengths of existing employees
- Capture international experiences of employees (details to FAO, WHO, etc.) to help push ahead VS 2015
- Plan for succession
- Place CDC Epidemiology Intelligence Service graduates
- Recruit
- Celebrate, promote, and publish APHIS VS successes
- Develop employees
- Engage universities
- Promote adjunct faculty in university settings
- Integrate US Public Health Service employees to work within APHIS (as in other agencies)
- Enter into Interagency Personnel Agreements
- Market APHIS VS' core competencies and abilities
- Improve free-flow of information of public health partners

Where APHIS VS Loses Money:

- Fees for service are insufficient to cover actual costs
- Projects that do not come to fruition e.g. Information Technology, Inefficient and costly use of contractors/consultants
- Decreased Congressional funding compared to human health agencies

What APHIS VS Needs to Improve:

- Active engagement with OH partners, both internally within USDA and externally
- Effective partnerships within APHIS and USDA and other Federal departments and agencies, states, industry, academia, non-governmental organizations, and international animal health and public health governments

- Enhanced diagnostics and surveillance to more effectively monitor national livestock herds, poultry flocks, companion animals, and wildlife
- Policies and activities targeted towards preventing, controlling, or eradicating select livestock and poultry diseases, and zoonotic diseases
- Communication within APHIS VS to inform and mobilize the work force towards new OH goals
- Clear, accurate and consistent communications and messaging to animal agriculture, other animal health partners, and the public
- Effective interface at local/regional/state levels with public health and wildlife agencies
- APHIS VS interactions between the surveillance and emergency response branches and the laboratory network system
- Scientific collaborations and development of cutting-edge technology to support the surveillance and emergency response branches
- Alignment of activities with the Animal Health Protection Act beyond animal agriculture to include all species to protect OH
- Data sharing between Federal OH partners, e.g., Centers for Disease Control and Prevention, US Food and Drug Administration
- Capacity of partners in the US and globally to detect and respond to all threats, e.g. chemical, biological, radiological, and nuclear.
- Evidence-based guidance, data, and predictive modeling to help develop policies and programs to prevent infectious diseases
- Linking and integrating surveillance systems into a coordinated system, i.e. a network of networks, of which one component is biosurveillance
- Better understanding of food systems, ecosystems, and public health principles
- Clarification of the role and responsibilities of APHIS VS in preharvest food safety
- Developing and enhancing our role as an effective partner in joint OH investigations at the animal-human interface.
- Promotion and support of APHIS VS employees as adjunct faculty in universities
- Development of effectiveness skills, e.g. communication, influence, critical thinking, ability to get results, change management, ability to work across cultures, networking, etc.
- Ability to engage stakeholders across the food system beyond production agriculture, e.g. food service, retail, food processing, etc.
- Relations with scientific professionals, e.g. microbiologists, virologists, etc. beyond veterinarians

APHIS VS OPPORTUNITIES (current conditions external to APHIS VS that will assist the agency in achieving the OH objectives):

Beneficial Trends:

- Interest in OH by the US Secretary of Agriculture, as evidenced by the creation of the USDA One Health Multi Agency Coordination Group
- APHIS VS and FSIS co-leads of USDA One Health Joint Working Group
- Interest in APHIS VS OH engagement by NGOs, e.g. OH Commission, American Veterinary Medical Association, Wildlife Conservation Society
- New opportunities to take a broader upstream approach to infectious disease prevention and control because infectious disease remain a major contributor to human/public health morbidity, mortality, and economic impact
- The human/public health impact of animal diseases as it pertains to improving food safety and food security, minimizing risk of zoonotic disease, and conserving environmental resources is increasingly impacting APHIS VS animal health management policies and priorities.
- Opportunity to coordinate and partner with OH stakeholders and organize OH activities and strategic plans, e.g. North American Summit
- High priority opportunities to integrate surveillance, research, and (upstream) prevention efforts in well defined areas such as food safety
- Increasing need to assist domestic and global OH partners in joint outbreak investigations, standardization in laboratory and epidemiological methods, capacity building, and training
- Develop animal health/public health response templates, standard operating guidelines, and role/responsibility flowcharts to be used when working with a zoonotic agent
- Developing consortia with the scientific community

Niches that other OH partners may overlook:

- Active and effective pre-harvest food (meat and poultry) safety programs
- Holistic view of food system issues

New Technologies:

- Electronic communications
- Traceability technologies for food and other products
- Basic advancements in web technology

New Needs of Customers:

- Public expectations that APHIS VS and its employees are national animal health leaders and authorities
- Leverage successes of APHIS VS- State/Tribal relations

Funding:

- Projects from National Institute of Health
- Other Federal agencies

APHIS VS THREATS (current conditions external to APHIS VS that are harmful or a hindrance to the agency in achieving the OH objectives:

Obstacles to overcome:

- APHIS VS organizational reluctance to change
- Lack of clear direction and commitment from leadership
- Internal authorities, e.g., need to define how much latitude to give individuals tasked with forming needed relationships and developing collaborative projects
- Poor strategic Business planning for agency transformation
- Resource shortages (personnel, funding); flat or decreasing federal budgets will require difficult decisions on how to re-prioritize funding
- The veterinary, animal health, and public health cultures often have divergent views of the same health issues, i.e., different missions, mandates, and stakeholders.
- Politics and polarization of issues and positions, e.g., antimicrobial resistance
- Anti-science movement, e.g, raw milk issue
- Limited APHIS VS succession planning and professional development

Ambitious and Assertive OH Agencies (i.e. OH partners):

- CDC, e.g., OIE CC on Emerging and re-emerging zoonotics diseases, liaisons placed at OIE and FAO.
- Perhaps AVMA as “national veterinary authority”?
- These other agencies are increasingly more attuned to the role that animals play in impacting human health. They have the ability to influence public perception towards current agricultural practices, and may adversely impact APHIS VS’ relationship with producers and other industry stakeholders.
- US Department of Homeland Security.

Successful Agencies:

- CDC – public trust, funding, assertion, established OH Office
- FDA – on-farm authority for egg safety
- FSIS – pre-harvest food (meat and poultry) safety
- US Department of Homeland Security emergency preparedness and response

Negative Economic Conditions:

- Current recession

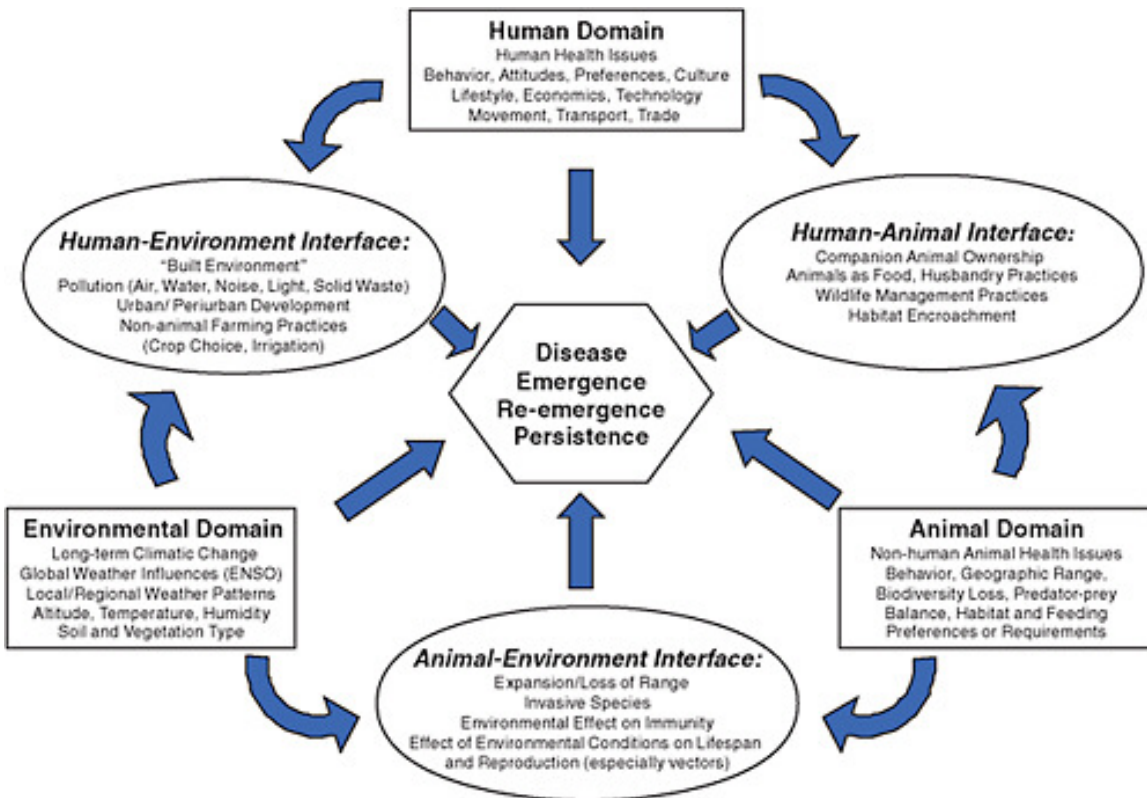
Government Regulation:

- Lack of administrative MOU's or MOA's with all of our partner agencies to define roles and responsibilities
- Lack of flexibility regarding APHIS VS oversight and administration of federal Program Diseases that are regulated through our 21 CFR – changing this document is difficult and time-consuming
- Need to identify, define, and close gaps in OH authorities within APHIS VS and among other government regulators

Changing Business Climate:

- APHIS VS must quickly examine and determine what areas to fill and what authorities are required to implement an expanded OH mission.

Appendix D: Example of OH Interactions for Infectious Diseases



The above diagram provides an overview of the driver-pathogen interactions contributing to the emergence of infectious zoonotic disease that necessitate a human, animal, environment "OH" approach. Source: Keusch, et al, 2009, Sustaining Global Surveillance and Response to Emerging Zoonotic Diseases, National Academies Press, Washington, DC.

