

Emerging Animal Disease Preparedness and Response Plan

**U.S. Department of Agriculture
Animal and Plant Health Inspection Service
Veterinary Services**

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Executive Summary

The purpose of this plan is to provide strategic direction for the U.S. Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Veterinary Services (VS) to detect and respond to emerging animal diseases and define the processes by which VS will identify, evaluate, and respond to emerging diseases in animal populations. Rapid detection and response to emerging diseases are critical to animal agriculture because these diseases can threaten the livelihood of producers and limit their access to important markets. Rapid and effective response can also prevent or limit negative impacts on animal health, the economy, food security, and public health. In 2014, the framework for this plan was outlined in the APHIS [concept paper](#), “VS Proposed Framework for Response to Emerging Animal Diseases in the United States.”

Under the authority of the Animal Health Protection Act (AHPA), 7 *U.S. Code* 8301 et seq., the Risk Identification (RI) team, which is part of the Center for Epidemiology and Animal Health’s (CEAH) Risk Identification and Risk Assessment (RIRA) unit, will conduct evaluations to assess risks of emerging diseases and will prepare briefs with participation of staff from the National Veterinary Services Laboratories (NVSL); Surveillance, Preparedness and Response Services; and National Import and Export Services. VS Unit Directors will review information, determine the need for and assign cross-unit Emerging Disease Teams to determine communication and response options, and make recommendations to the VS Executive Team (VSET) for decision-making and resource allocation. VS will follow standard program, regulatory, and budgetary business practices when responding to an emerging animal disease and will include, as needed, the use of VS Guidance 12001.2.

VS will work with Federal, State, tribal, academic, and industry partners to collect and evaluate information regarding an emerging disease and determine communication and response options. Subject matter experts from Federal agencies, the National Assembly of State Animal Health Officials (NASAHO), American Association of Veterinary Laboratory Diagnosticians (AAVLD), industry associations, and academic institutions will participate in cross-unit Emerging Disease Teams, as needed, to prevent and minimize the impact of emerging diseases. We will coordinate with APHIS Legislative and Public Affairs to develop USDA communications around specific response activities using current protocols.

VS’ response to an emerging disease will depend on the specific event and be scaled to the level of risk posed to animal or public health. This plan outlines several options, including development of case definitions, conduct of on-farm investigations, development and distribution of communication materials, increase in diagnostic capacity, and establishment of regulations for a new program or policy. Because of the unknown nature of emerging diseases, VS cannot define one specific response plan, and there may be responses not identified in this document relevant to a particular emerging disease incident.

CHAPTER 1. INTRODUCTION AND DEFINITIONS

1.1 Introduction

Emerging animal diseases have the potential to negatively affect animal health, public health, and trade. Examples of such disease occurrences in the United States in the past 20 years include porcine reproductive and respiratory syndrome, infectious salmon anemia, West Nile virus, and monkeypox virus. More recent examples include the emergence of Schmallenberg virus in Europe and porcine epidemic diarrhea virus in the United States.

Because of the unknown nature of emerging diseases, VS cannot define one specific response plan. Some emerging diseases are reported after an acute impact in a limited number of animals, while some diseases are recognized only after longer-term impacts on animal health or production. VS plans to work with all stakeholders to implement appropriate response measures to emerging diseases, with the understanding that these diseases – at least when first defined – are clearly different from listed foreign animal diseases. VS has established response plans for foreign animal diseases, such as foot-and-mouth disease and highly pathogenic avian influenza.

Since the 1990s, VS engaged in emerging disease detection and response as part of its major goals. The [“VS: A New Perspective”](#) document also includes the concepts of identification, analysis, and response to emerging diseases. Rapid detection and response to emerging diseases are critical to animal agriculture’s production. Diseases may have a significant impact regardless of whether they spread rapidly or slowly. Emerging diseases that are not detected and addressed could threaten the livelihood of producers or limit their access to important markets (domestically or internationally).

Rapid detection and response to emerging diseases can prevent or limit negative impacts to animal health, the economy, food security, and public health. In these cases, agency policy makers and the public can use situational animal health information to make better informed decisions. VS has an extensive history of working with animal agriculture participants, academic institutions, State animal health officials, industry, tribal, and other Federal and international partners. We intend to apply this collaborative approach to increase awareness of, detect, characterize, investigate, and respond to emerging disease threats, as well as provide accurate information to all interested parties. VS will use the activities described in this plan to provide a solid scientific foundation for developing strategic interventions and informing the public of all appropriate actions.

The goals of this plan are to outline the following four core activities associated with detection and response to emerging animal diseases:

1. Undertake global awareness, assessment, and preparedness for animal diseases or pathogens not currently in the United States that may be of animal or public health concern or have trade implications;
2. Detect, identify, and characterize disease events;
3. Communicate findings and inform stakeholders; and
4. Respond quickly to minimize the impact of disease events.

A fifth goal, addressing recovery from the event, would include strategies that stabilize animal agriculture, the food supply, and the economy, and protect public health and the environment. These activities, including the [secure food supply plans](#), are an extension of this plan and are not detailed here.

1.2 Purpose of Document

This plan provides strategic direction for VS to detect and respond to emerging animal diseases. The plan also defines communication activities and possible response measures for an emerging animal disease occurring in the United States.

1.3 Audience

This document is intended for the community responsible for animal health and disease control (Federal, State, territory, Tribal, industry, and private sector), and provides strategic guidance and outlines roles and responsibilities for detecting, reporting, and responding to emerging animal diseases.

1.4 Authority

The AHPA, 7 U.S. Code 8301 et seq., authorizes the Secretary of Agriculture to restrict the importation, entry, or further movement in the United States or order the destruction or removal of animals and related conveyances and facilities to prevent the introduction or dissemination of livestock pests or diseases. The AHPA authorizes related activities with respect to detection, control, or eradication of any pest or disease of livestock, as well as exportation, interstate movement, cooperative agreements, enforcement and penalties, seizure, and quarantine. The Act also authorizes the Secretary to establish a veterinary accreditation program and enter into reimbursable fee agreements for pre-clearance abroad of animals or articles for movement into the United States.

1.5 Definitions

Emerging disease: A disease, infection, or infestation in domestic or wild animals that is a threat to terrestrial animals, aquatic animals, or humans, and meets one of the following criteria:

1. An unknown agent that is causing disease, infection, or infestation in an animal population and has the potential to result in a significant animal or public health impact, and applied diagnostic tests have yielded negative or non-definitive results; OR
2. A newly identified agent that is causing disease, infection, or infestation in an animal population and has the potential to cause significant animal or public health impact, or is occurring in multiple herds/flocks/premises; OR
3. A previously identified or known pathogenic agent that has a change in epidemiology, such as:
 - a. Increased pathogenicity,
 - b. Expanded host range,
 - c. Change in geography of an agent with the potential to cause a significant animal or public health impact, or
 - d. Unexpected morbidity/mortality.

Risk Identification Team (RI team): Team within CEAH responsible for monitoring the global animal health landscape for potential threats, assessing the risk posed by a possible emerging disease in the United States, and leading the collection of information to support possible actions.

VS Liaisons: VS Directors who serve as the first level of review for preliminary assessment of information assembled and analyzed by the RI team.

VS points of contact (POC): Subject matter experts designated by VS Liaisons to assist the RI team with the collection of data on possible emerging diseases.

CHAPTER 2. IDENTIFYING AND CHARACTERIZING GLOBAL AND DOMESTIC THREATS TO ANIMAL HEALTH

2.1 Global and Domestic Awareness and Assessment

The RI team is responsible for monitoring the distribution of animal diseases domestically and globally to identify potential threats to U.S. agriculture. The team works collaboratively with personnel across VS and others in the community responsible for animal and public health (federal, state, territory, tribal, industry, and private sector) to identify and describe global emerging animal disease risks.

The RI team will identify and characterize animal disease risks using information from relationships established directly or through VS POCs from other U.S. Department of Agriculture units and other U.S. and international sources, including the following:

- U.S. Department of Homeland Security (DHS);
- U.S. Department of the Interior (DOI);
- U.S. Department of Commerce;
- U.S. Department of Defense (DOD);
- U.S. Department of Justice;
- Centers for Disease Control and Prevention (CDC);
- Inter-American Institute for Cooperation on Agriculture;
- International Regional Organization for Plant and Animal Health;
- Pan-American Foot and Mouth Disease Centre;
- World Organization for Animal Health (OIE);
- Food and Agriculture Organization of the United Nations; and
- World Health Organization.

We will review open-source information available from international agencies and organizations, various media outlets, and peer-reviewed scientific literature daily to maintain a baseline situational awareness of global animal health issues and disease events.

Domestically, the RI team uses information from a variety of resources, including:

- NVSL;
- National Animal Health Laboratory Network (NAHLN), voluntary National Animal Health Reporting System (NAHRS);¹
- National Animal Health Monitoring System surveys;
- Mandatory reporting, such as that required by the “Reporting, Herd Monitoring and Management of Novel Swine Enteric Coronavirus Diseases Federal Order”; and
- Data provided by VS certification and surveillance programs.

In addition, VS will utilize existing relationships with animal industry groups; State and Tribal animal health, public health, and wildlife health officials; laboratories; accredited

¹ Until the National List of Reportable Animal Diseases is proposed and finalized in the Code of Federal Regulation, the NAHRS system remains the system for reporting diseases in the United States.

veterinarians; producers; livestock market operators; universities; and other agencies to access, share, and evaluate a broad scope of information.

Several industry organizations have implemented systems to gather animal disease information. These commodities include swine (Swine Health Information Center) and equine (Equine Disease Communication Center). VS personnel serve as agency liaisons for these efforts by facilitating communication and collaboration.

2.2 Roles and Responsibilities Overview

A successful emerging disease response will require a collaborative effort between APHIS, State and Tribal Animal Health Officials, and animal industries. While VS will lead this effort, the input and cooperation of States and animal industries is essential.

VS Business Units: The responsibilities of VS business units is described in general here and further detailed throughout this document.

Science, Technology and Analysis Services (STAS) The RI team, part of CEAH's Risk Identification and Risk Assessment (RIRA) unit, is the primary unit responsible for monitoring domestic and international information sources described in section 2.1, conducting preliminary evaluations of information pertaining to risks to U.S. animal health, and leading further analyses and data gathering when possible emerging diseases are identified. The team maintains a database of diseases that are actively monitored and a time interval for updating information used to assign a risk level to each.

In addition to RIRA, CEAH and STAS include other units that will participate in emerging disease assessment and response. In CEAH, these include the Information Management and Analytic Support Unit, the Monitoring and Modeling Unit, and the Surveillance, Design, and Analysis Unit. Within STAS, they include the Center for Veterinary Biologics, the National Veterinary Services Laboratories, and the Office of STAS Interagency Coordination. Directors in STAS will designate emerging diseases POCs responsible for assisting RI team analysts with the collection of information and initial risk category assignment (see Appendix A). In addition, STAS will designate Directors to serve as liaisons to the RIRA Director to review information prepared by the RI team and their POCs.

Surveillance, Preparedness and Response Services (SPRS): As the VS business unit responsible for implementation of its surveillance, preparedness and response activities, SPRS staff routinely receive information on potentially emerging animal health issues. SPRS will designate emerging diseases POCs for each animal commodity, the National Preparedness and Incident Coordination Center (NPICC), and the One Health Coordination Office (OHCO)

In addition, Directors of the Avian, Swine, and Aquatic Animal Health Center; Cattle Health Center; Sheep, Goat, Cervid, and Equine Health Center; OHCO; and NPICC will serve as liaisons to the RIRA Director to review information prepared by the RI team and their POCs.

National Import and Export Services (NIES): NIES will designate emerging diseases POCs to assist RI team analysts with the collection of information and initial risk category assignment. NIES will also designate Unit Directors as liaisons to review information prepared by the RI

team and their POCs.

Emerging diseases POCs will be responsible for the following activities:

- communicating information regarding potential emerging diseases to RI team analysts for situational awareness;
- providing subject matter expertise to the RI team to determine a risk level category assignment for each agent;
- assisting with the review of laboratory testing results;
- estimating trade issues; and
- communicating issues up their respective supervisory chains.

For each international agent designated a risk category 2, domestic agent designated a risk category 1 or greater, or each agent where additional information is required before a risk category can be assigned, the appropriate VS Liaisons will determine if additional information, analyses, or field response is required. The VS Liaisons will assign appropriate subject matter experts within their units to participate in the cross-unit Emerging Disease Team to evaluate these needs and make recommendations.

States: States' responsibilities include reporting under the NAHRS.² However, States are encouraged to contact the appropriate SPRS Assistant Director with any unusual disease event in their State to discuss results of diagnostic testing and available epidemiological information. State animal health officials may also participate in cross-unit Emerging Disease Teams, assisting VS with the evaluation and analysis of information and data gathering when possible emerging diseases are identified. In addition to providing input into the discussion and development of possible response options, further State responsibilities would include issuance of holds or quarantines and participation in any monitoring, control, or eradication activity, as appropriate.

Industry: VS will use previously established communication links with industry organizations to communicate information, evaluate and discuss data related to potential disease risks and concerns, and develop response options. Industry organizations may also establish POCs for regular information exchange and provide subject matter experts to participate in cross-unit Emerging Disease Teams. For those industries that have implemented systems to gather animal disease information, such as the Swine Health Information Center and Equine Disease Communication Center, VS personnel serve as agency liaisons to these efforts, facilitating rapid communication and collaboration.

Agency and Non-Agency Partners. Other Federal partners in USDA, DHS, CDC, DOI, DOJ, etc., as well as NAHLN laboratories, universities, Tribes and accredited veterinarians, will provide information, review data, and provide subject matter expertise, as needed. Depending on the situation, partners may provide subject matter experts to help analyze preliminary information and determine the level of risk to U.S. animal or public health, as well as participate in cross-unit Emerging Disease Teams to assist with evaluation and characterization of the disease incident, communications, and other related emerging disease response activities.

² Until the National List of Reportable Animal Diseases is proposed and finalized in the Code of Federal Regulation, the NAHRS system remains the system for reporting diseases in the United States.

2.3 Initial Assessment of Information

Based on information from global and domestic sources provided by Federal, State, academic and industry partners, the RI team will work with emerging diseases POCs to conduct a preliminary assessment and assign the disease to one of the following risk-level categories (Appendix A):

- Level 1: Nominal risk to U.S. animal or public health;
- Level 2: Potential risk to U.S. animal or public health;
- Level 3: Impending risk to U.S. animal or public health; or
- Level 4: Current risk to U.S. animal or public health.

The RI team will maintain a tracking system documenting each agent being actively monitored and its assigned risk level category. For each international emerging disease risks designated at risk level 2 or greater, domestic diseases designated at any level, or diseases for which additional information is needed before a risk level can be assigned, the RI team will summarize the information used to make the risk category assignment in a short briefing document. The RI team will share the briefing documents with appropriate VS Liaisons for review.

If, based on the results of the review, the severity and complexity of a disease incident warrants additional communication, evaluation, characterization, or response, VS Liaisons will identify appropriate subject matter experts to form a cross-unit Emerging Disease Team. The Team will determine the additional information, communications, analyses, or field response needed to thoroughly evaluate, characterize, or mitigate the disease incident, including using partnerships with other entities (Appendix B).

2.4 Evaluation of Disease Incidents and Recommendations for Response

When the RIRA Director and VS Liaisons' initial review determines an emerging disease incident requires communication, evaluation, characterization, or response, VS Liaisons, in collaboration with RI analysts and emerging diseases POCs, will identify appropriate subject matter experts to form a cross-unit and, if needed, interagency or agency-stakeholder Emerging Disease Team to conduct these activities. For public health concerns associated with emerging zoonotic disease issues, we will closely collaborate with the CDC through the OHCO and the APHIS liaison position collocated at the CDC.

The RI Team Lead will initially organize and lead the Team to review information, determine gaps in data or preparedness, and outline additional communications, analyses, research, field epidemiological investigations, or mitigations needed to fully characterize, communicate, and respond to the emerging disease incident.

The Emerging Disease Team will document and provide results of all evaluations, including any communication materials and recommendations for response, to VS Liaisons for presentation and decision making by the VSET, as appropriate. Recommendations will outline any regulatory issues or financial needs associated with each action.

The VSET will approve and authorize resources for the appropriate response measures. Depending upon the scale, scope, and urgency of the situation, the VSET may need to designate responsibility to the appropriate VS business unit for each recommendation. For instance, further field investigations would be the responsibility of and coordinated through SPRS, pathway analyses would be the responsibility of and coordinated through RIRA or NIES, and questions about existing surveillance data would be coordinated by STAS.

CHAPTER 3. RESPONSE COORDINATION

If the evaluation of an emerging disease incident includes response option recommendations, the cross-unit Emerging Disease Team will take the lead in coordinating the response option(s) selected by the VSET. The actions necessary to develop and implement specific responses are outside the scope of this document. However, VS will follow standard program, regulatory, and budgetary business practices including the use of [VS Guidance 12001.2 Potential Foreign Animal Disease Incidents \(FAD/EDI\)](#) and response evaluation tools such as the “Technique for the Assessment of Intervention Options” (TAIO) and Decision Lens, as needed.

If the emerging disease impacts a single species, the appropriate SPRS Commodity Center Director (or their designee) will become the leader of the cross-unit Emerging Disease Team and will be responsible for developing and implementing response options, coordinating as needed with affected commodity groups and State animal health officials. If a disease impacts more than one commodity or a commodity not represented in an existing VS health center, then it will be the responsibility of the SPRS Associate Deputy Administrator to designate a leader for the Team. The Team Leader may request further analyses to clarify response options. The analyses should consider impacts to international trade, animal health, public health, food security, agricultural production, and the environment; geographic distribution of disease; political pressures; resource intensity; available subject matter expertise; diagnostic capabilities; regulatory authorities; and the potential for bioterrorism.

Possible response options are listed by risk level category below and will depend on the specific situation. Response options outlined for each risk level also include all options listed for lower risk level categories. Additionally, there may be responses not identified in the document that might be relevant to a certain emerging disease incident.

3.1 Possible Responses to Emerging International Threats

Risk Level 1 (Nominal Risk to U.S. Animal or Public Health)

- Provide continual monitoring of emerging disease incident and situational awareness updates, as needed.

Risk Level 2 (Potential Risk to U.S. Animal or Public Health)

- Continue to monitor emerging disease incident and provide situational awareness updates, as needed.
- Assess preparedness status for introduction (e.g. lab capacity, presence of valid diagnostic tests, vaccines).
- Identify existing disease mitigations.

Risk Level 3 (Impending Risk to U.S. Animal or Public Health) or insufficient information available to assign to a risk level

- All options in Levels 1 and 2.
- Work with APHIS International Services personnel in relevant countries to get additional information on disease incident.
- Determine need for further evaluation and characterization of incident by an Emerging Disease Team.

- Conduct pathways and import risk assessments, and determine data gaps and needs for additional information to inform high risk entry points.
- Increase laboratory diagnostic capacity and evaluation or development of effective vaccines.
- Implement import restrictions or increased surveillance, as needed.
- Develop and distribute communication materials to relevant partners and stakeholders.

3.2 Possible Responses to Emerging Domestic Threats

Risk Level 1 (Nominal Risk to U.S. Animal or Public Health):

- Contact diagnostician(s), State, territory, Tribal, and Federal partners, and relevant diagnostic laboratories to get additional information and confirmation of disease incident.
- Identify and conduct additional needed research (e.g., animal inoculation studies, additional molecular characterization of pathogen).
- Determine reservoirs, transmission pathways and potential impacts on U.S. animal or public health.
- Implement increased surveillance, as needed.
- Develop a case definition based on known epidemiological or agent-specific characteristics.
- Conduct an investigation on farms meeting case definition, as needed to characterize incident.
- Develop and distribute communication materials to relevant agency and non-agency partners and stakeholders.
- Increase diagnostic capacity, as needed.

Risk Level 2 (Potential Risk to U.S. Animal or Public Health):

- All options in Level 1.
- Increase laboratory diagnostic capacity and evaluation or development of effective vaccines.
- Develop a case definition for reporting based on laboratory criteria.
- Define laboratory data formats and data flows.
- Provide guidance to States, territories, Tribes, industry, and other stakeholders for prevention, detection, and response to emerging disease.

Risk Level 3 (Impending Risk to U.S. Animal or Public Health):

- All options in Levels 1 and 2.
- Determine need for and establish regulations and/or new policy.

Risk Level 4 (Current Risk to U.S. Animal or Public Health):

- All options in Levels 1-3.
- Develop a surveillance plan and conduct active surveillance (situation dependent).
- Conduct analytical epidemiologic investigations.
- Determine need for and establish regulations for a new program (certification, control, or eradication) or new policies.

CHAPTER 4. COMMUNICATION AND INFORMATION SHARING

Throughout the process of developing an emerging disease response, VS will share situational awareness and risk assessment information, including the results of disease evaluation and characterization, with States, territories, Tribes, affected industry and other government agencies, such as Food and Drug Administration, Food Safety Inspection Service, CDC, DHS, and other stakeholders. VS will provide timely communications in writing, including the use of Stakeholder Registry Notices, which can be further distributed by e-mail to the State animal health officials, impacted industry associations, and other Federal partners. If a determination is made that a disease poses an actionable threat, VS will engage the NASAHO, AAVLD, industry associations, and industry emerging disease groups as appropriate to develop response options. VS will coordinate formal USDA communications around specific response activities, such as investigative studies, eradication, control, or certification programs with APHIS Legislative and Public Affairs.

Communication and collaboration between government agencies, industries, and other stakeholders impacted by a potential or emerging disease is essential to ensure a timely and appropriate response. Communication should flow in both directions to ensure that information is current and analyses/evaluations are well vetted and accurate. Continuous communication, collaboration, and information sharing will allow for the early detection of emerging diseases. Communications will vary depending on the situation, but will include both written and verbal methods.

It is important to stress that any emerging disease information released by USDA will maintain the confidentiality of any individual owner.

4.1 Communication within USDA

4.1.1 Situational awareness briefing

The RI team and VS POCs will prepare a written emerging disease brief summarizing available information and risk level assignment, as needed (see section 2.3). They will provide the summaries to VS Liaisons for discussion during regularly scheduled meetings or ad hoc meetings based on the urgency of the situation. Briefs may be further distributed internally for discussion during regularly scheduled VS internal conference calls and, if appropriate, shared with external stakeholders.

4.1.2 Summary of evaluation and characterization of disease incidents with recommendations for response

When the Emerging Disease Team is required to further evaluate an emerging disease based on briefs and other information, they will provide a summary of the evaluation and recommended response options to the VSET for review and decision-making during regularly scheduled weekly or monthly meetings, or during ad hoc meetings, as needed, based on the urgency of the situation.

4.2 Communication with Federal Partners, State, Tribes and Industry

VS Liaisons are responsible for distributing written situations reports of the emerging disease incident to Federal, State, territory, Tribal, and industry partners. The VS Liaison may also hold conference calls, webinars, or face-to-face meetings, as required, and will update and distribute the situation report as additional information becomes available.

4.3 Public Communication

VS will handle public communication using existing protocols for written and/or verbal communications, including the appropriate processes for development and clearance of communications and coordination with stakeholders. Stakeholder announcements and FAQ websites are a few of the tools that VS may utilize. Not all emerging diseases will warrant public communication.

APPENDIX A: Guidance for Assigning Diseases to a Risk Level

Threat Definitions

	Host Range	Pathogenicity	Current Geographic Range	
			Has not been identified in the U.S. within last year	Disease confirmed in the U.S.
Minimal	Restricted to a single, non-livestock species and/or wildlife species with no public health concerns	Low morbidity/mortality in animals	Local presence in a foreign country with no transboundary spread	Small local presence with no spread, and no recognized high risk transmission pathways
Moderate	Single sector of an agricultural commodity (e.g., layer hens, dairy cattle), and/or a new host species recognized, or potential to affect public health	Moderate morbidity/mortality in animals, minimal effect on human health	Present in a foreign country with minor to moderate spread to neighboring countries or regions	Local presence with limited spread to surrounding counties/parishes, or recognized high risk transmission pathways for spread
Significant	One or more agricultural commodity sectors and/or moderate risk to public health	High morbidity/mortality in animals or moderate or significant effect on human health	Present in a foreign country bordering the US, or trading partner with a recognized transmission pathway	Multiple emergence points or regional spread recognized

Using Threat Definitions to Assign Diseases to Risk Levels³

Risk Level Categories for Emerging International Threats

Level 1—Nominal risk to U.S. Animal or Public Health

- Host Range: Minimal to moderate host range.
- Pathogenicity: Minimal to moderate pathogenicity in animals; no or minimal effect on human health.
- Current geographic range: Minimal to moderate geographic range for diseases not recently identified in the United States.

Level 2—Potential risk to U.S. Animal or Public Health

- Host range: Moderate to significant host range.
- Pathogenicity: Moderate to significant in animals; no or minimal effect on human health.
- Current geographic range: Minimal to moderate geographic range for diseases not recently identified in the United States.

Level 3—Impending risk to U.S. Animal or Public Health

- Host range: Moderate to significant.
- Pathogenicity: Moderate to significant.

³Threat Definitions and Risk Levels are qualitative, and assignment of individual emerging animal diseases may vary, based on the information available.

- Current geographic range: Significant geographic range for diseases not recently identified in the United States.

Risk Level Categories for Emerging Domestic Threats

Level 1—Nominal risk to U.S. Animal or Public Health

- Host Range: Minimal host range.
- Pathogenicity: Minimal to moderate pathogenicity in animals; no effect on human health.
- Current geographic range: Minimal to significant geographic range for diseases confirmed in the United States.

Level 2—Potential risk to U.S. Animal or Public Health

- Host range: Minimal to moderate host range.
- Pathogenicity: Moderate to significant pathogenicity in animals; no or minimum effect on human health.
- Current geographic range: Minimal geographic range for diseases confirmed in the United States.

Level 3—Impending risk to U.S. Animal or Public Health

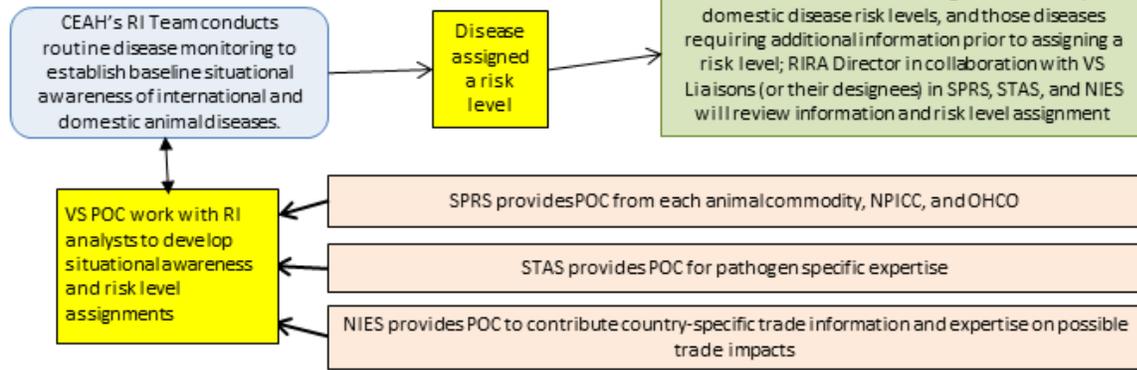
- Host range: Moderate host range.
- Pathogenicity: Moderate to significant pathogenicity in animals; no or minimum effect on human health.
- Current geographic range: Moderate geographic range for diseases confirmed in the United States.

Level 4—Current risk to U.S. Animal or Public Health

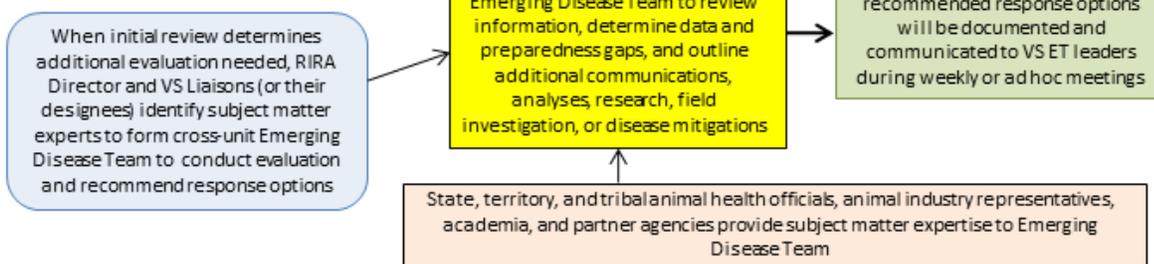
- Host range: Moderate to significant host range.
- Pathogenicity: Moderate to significant pathogenicity in animals, or moderate to significant effect on human health.
- Current geographic range: moderate to significant geographic range for diseases confirmed in the United States.

Appendix B: Emerging Disease Identification, Characterization and Response

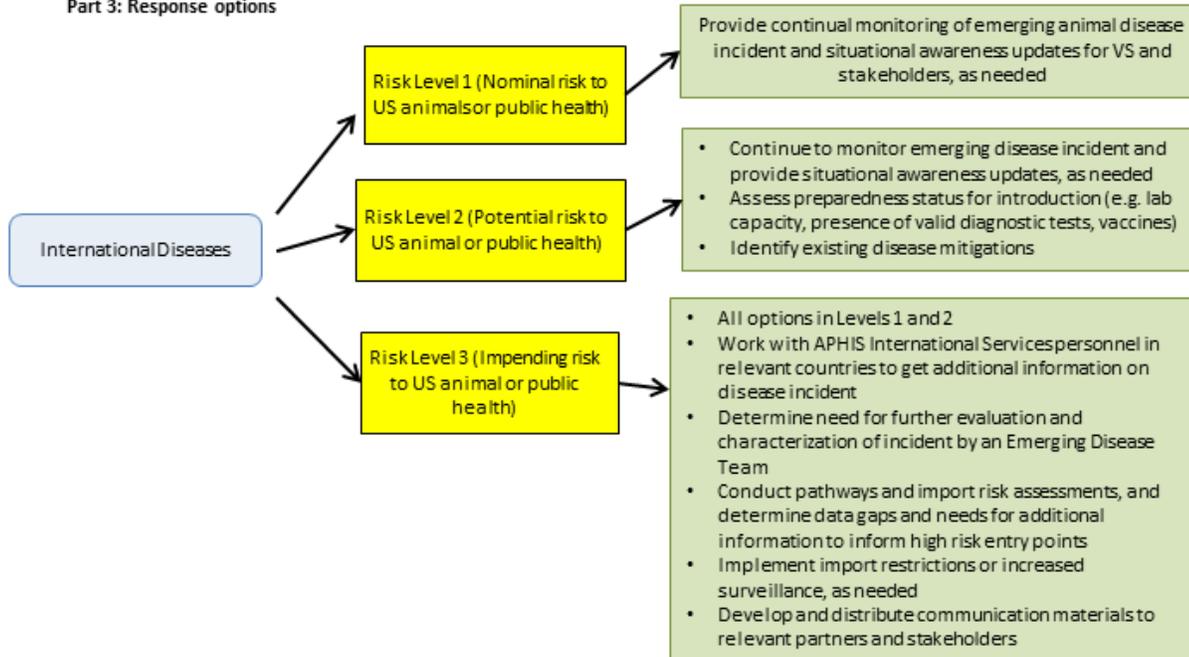
Part 1: Receipt and initial evaluation of information

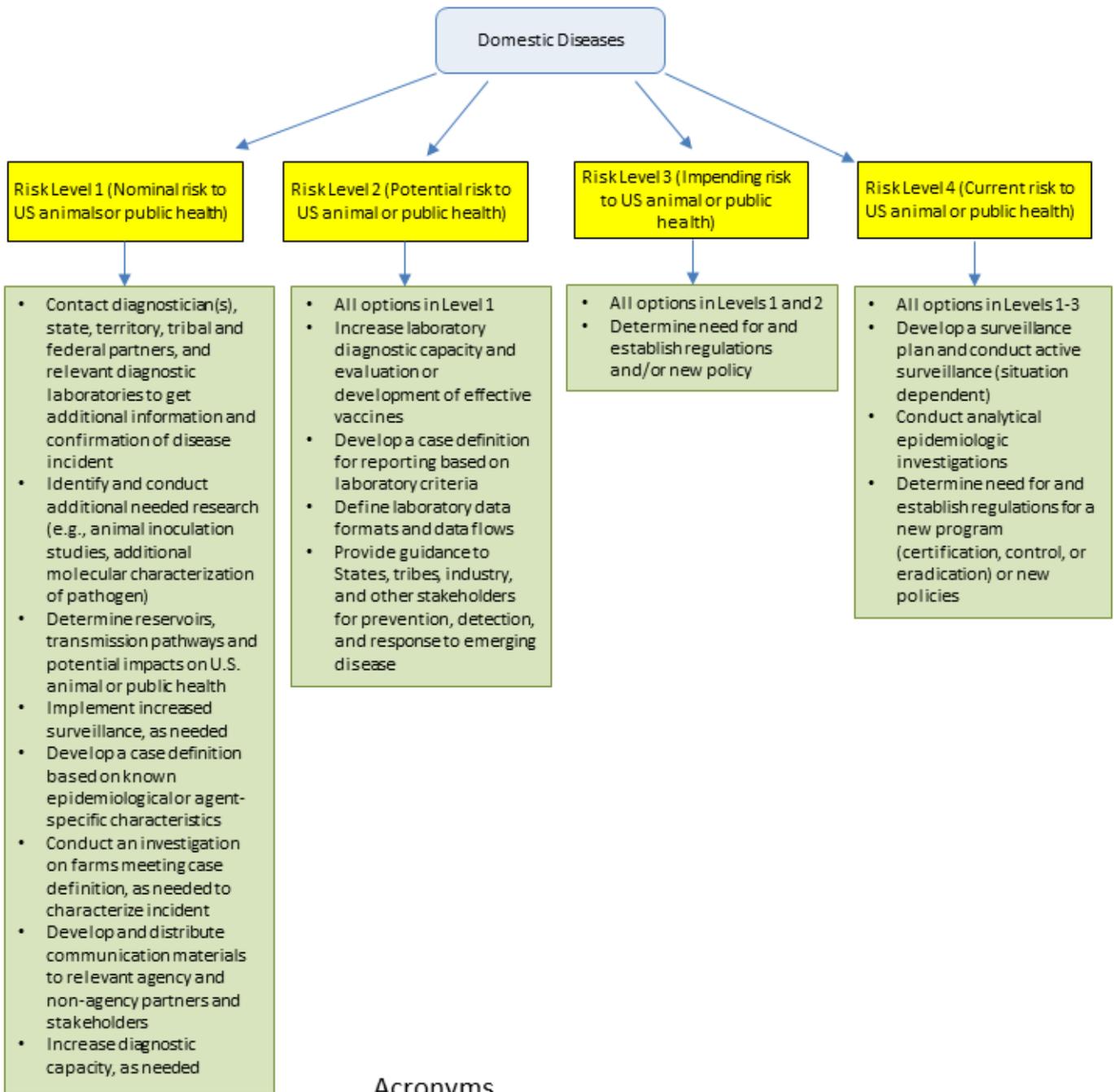


Part 2: Evaluation and Characterization



Part 3: Response options





Acronyms

- CEAH: Center for Epidemiology and Animal Health
- RI: Risk Identification
- POC: Points of Contact
- RIRA: Risk Identification and Risk Assessment Unit
- SPRS: Surveillance, Preparedness and Response Services
- NPICC: National Preparedness and Incident Coordination Center
- OHCO: One Health Coordination Office
- NVSL: National Veterinary Services Laboratories
- NIES: National Import Export Services
- VS ET: Veterinary Services Executive Team