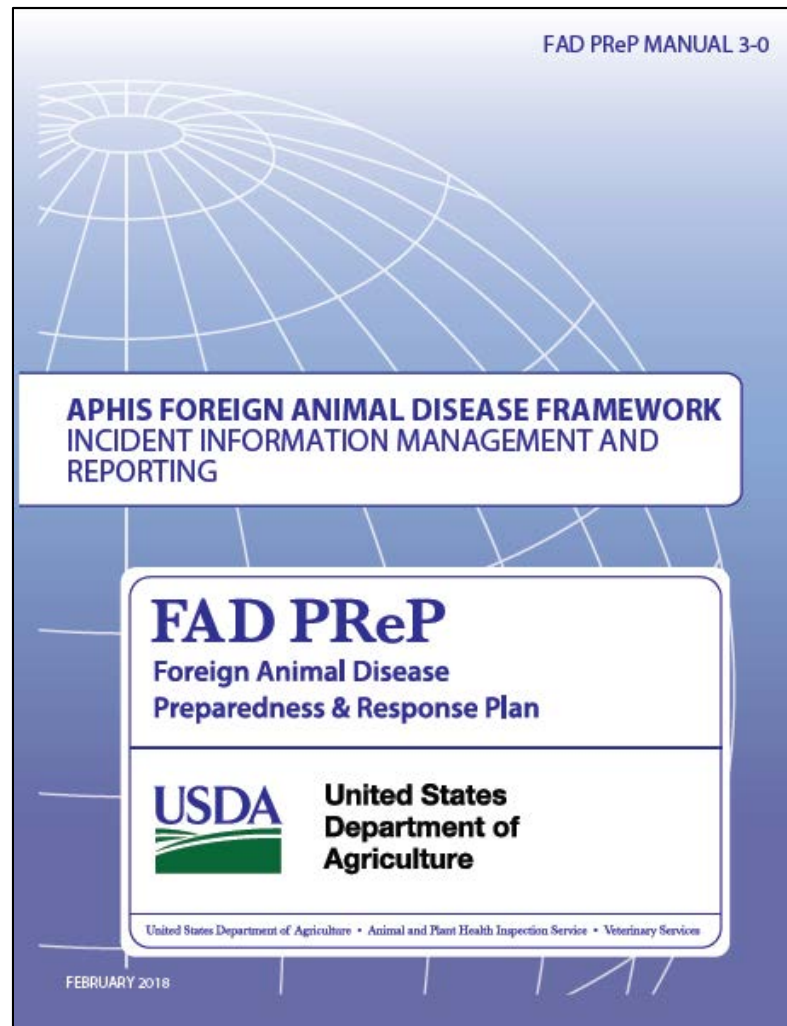


Incident Information Management and Reporting

APHIS Foreign Animal
Disease Framework

FAD PReP Manual 3-0

February 2018



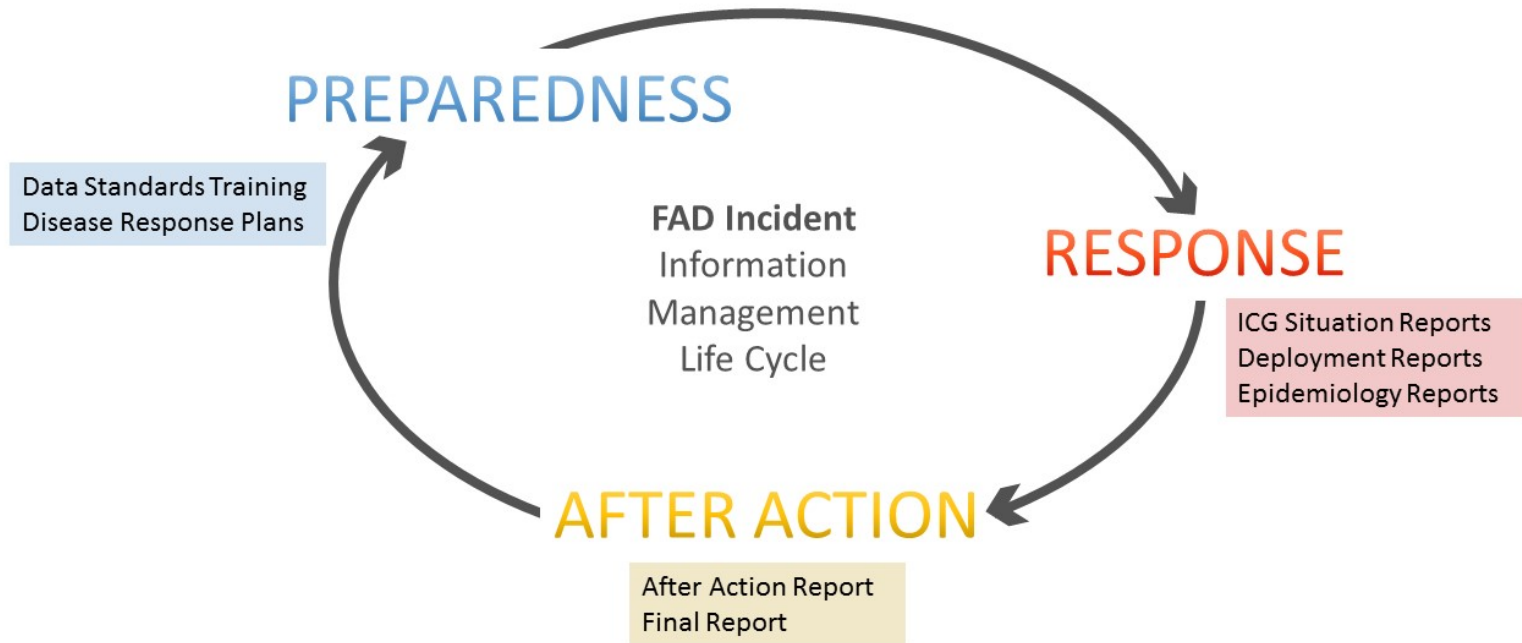
Incident Information Management & Reporting Introduction

- Preparedness and response planning for Foreign Animal Disease (FAD) incidents is crucial to protect animal health, public health, animal agriculture, the food supply, the environment, and the economy.
- The *FAD Framework: Incident Information Management and Reporting (Manual 3-0)* presents a high-level overview of Information Management (IM) and routine reporting processes of the National Incident Coordination Group (ICG), particularly the Information Management Section.
- Reporting and IM are fundamental to any FAD response effort.

Incident Information Management & Reporting Overview

- IM systems help to facilitate the collection, management, reporting, analysis, and dissemination of critical emergency response information in an FAD incident.
- IM systems provide the unified Incident Command, National ICG, and Multiagency Coordination (MAC) Groups with access to timely, appropriate, and accurate data needed to make decisions.
- Because data are so important for situational awareness, field activities, and accurate reporting, all IM activities are a priority during an incident.

FAD Incident Information Management/Reporting Life Cycle



Note: The documents listed are examples, and not meant to be a complete list of all IM or reporting products.

Status of the Previous Manual 3-0

- This document replaces the *FAD Framework: Incident Coordination Group Plan (old FAD PReP Manual 3-0)*.
- All information from the prior manual is now incorporated into this document (when related to IM or reporting) or *FAD Framework: Roles and Coordination (FAD PReP Manual 1-0)* when related to the structure and processes of the ICG.
- This document also supersedes the document *NAHEMS Guidelines: Information Management*, which is no longer available.
- As IM systems change, so do organizational and reporting requirements. These documents are reviewed and updated as needed.

Preparedness Goals for Information Management Activities

- The preparedness goals for IM are as follows:
 - Ensure that local, State, Tribal, and Federal IM systems are compatible for sharing data and information or that plans and processes are in place before an incident to efficiently share data and information.
 - Identify gaps or weaknesses in current IM systems during a large-scale FAD outbreak, especially related to communicating incident goals and objectives, status reports, tracing information, premises status information, diagnostic results, epidemiology reports, permits for movement, and resource information.
 - Improve capabilities for IM for a large-scale or complex outbreak.

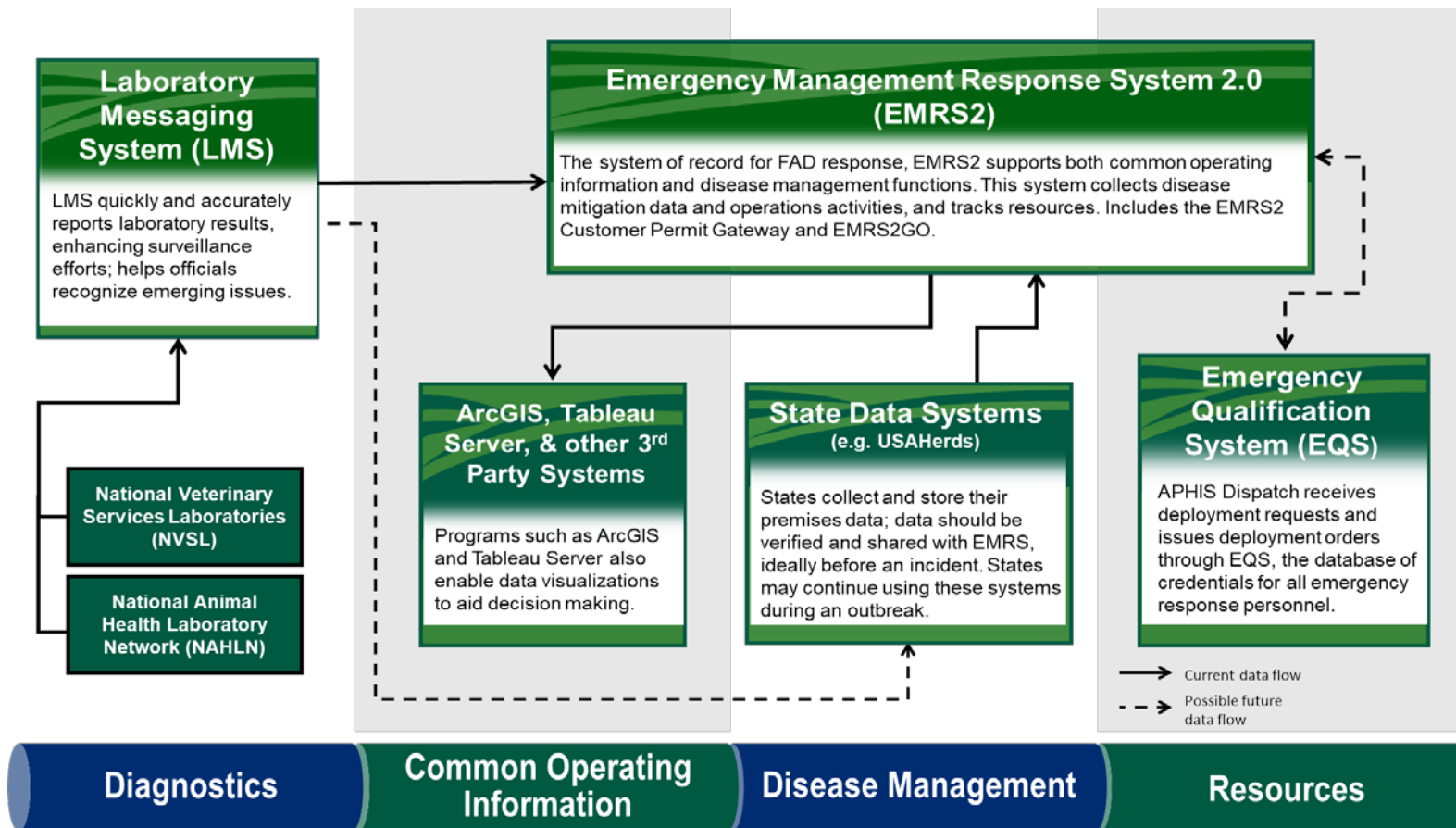
Response Goals for Information Management Activities

- The response goals for IM are as follows:
 - Perform Emergency Management Response System 2.0 (EMRS2) data entry processes or information downloads in 24-hour intervals or less, or as requested by the National Incident Coordinator (NIC) or Deputy NIC. Data entry should be as close to real-time as feasible.
 - Effectively communicate incident goals and objectives, progress, tracing information, premises status information, diagnostic results, epidemiology reports, permits for movement, and resource information in a timely and accurate manner both internally and externally.

Overview of Information Management Systems Used in an FAD Incident

- The primary IM systems used for disease management, diagnostics, common operating information, and logistics are as follows:
 - EMRS2
 - Emergency Qualification System (EQS)
 - Laboratory Messaging System (LMS)
 - State data systems (e.g., USAHerds and others)
 - Third party systems [e.g., Geographic Information Systems (GIS) or Tableau].

Information Management Systems Used in an FAD Incident



Note: Current data flows indicate where it may be currently possible to electronically share specific data between the systems (in the direction of the arrow). Possible future data flows indicate where electronic sharing of specific data may occur in the future.

Emergency Management Response System 2.0

- EMRS2 is the USDA APHIS official system of record for all IM in FAD investigations and incidents.
 - Automates many tasks associated with animal disease outbreaks and emergencies.
 - Provides a secure, accessible system for data collection, management, and analysis utilizing a web-based comprehensive investigation, task, and resource management suite on a universal information platform.
 - Offers EMRS2 users (Federal, State, Tribal officials, specialists, technicians, and epidemiologists) a means to respond to animal disease outbreaks, routine surveillance of FADs, and all-hazard animal incidents.

Emergency Management Response System 2.0, cont.

- There are five critical uses of EMRS2 in FAD preparedness, response, and after an FAD incident:
 - *Disease management*: records and manages complex information about premises and the actions that occur on those premises from detection to recovery.
 - *Tracing*: robust ability to manage and report information on the movement of animals, groups of animals, and items/objects associated with outbreaks.
 - *Permitting*: ability to issue and track all permits through EMRS2 and the EMRS2 Customer Permit Gateway.
 - *Resource management*: can be used to manage personnel deployments and also track other types of resources such as equipment and supplies.
 - *Mapping*: the Advanced Mapping Tool can use real-time data to provide a common operating picture to responders and the National ICG.

Emergency Qualifications System

- EQS is a database of emergency response personnel and their credentials for all emergency response positions; this system is used to officially deploy qualified personnel to an incident.
- EQS is managed by the APHIS Emergency Management, Safety, and Security Division (EMSSD) – EMSSD can provide more information on EQS functionality and procedures.
- During an FAD incident, APHIS Dispatch uses EQS to fill resource orders submitted to the NIC.

Laboratory Messaging System

- The National Veterinary Services Laboratories serves as a reference laboratory both nationally and internationally.
- The National Animal Health Laboratory Network diagnostic laboratories provide early detection and response capabilities for FADs; they also provide critical surge capacity for specific disease agents.
- NAHLN and NVSL use LMS to do the following:
 - Provide alerts on defined events to authorized personnel.
 - Securely transmit and store data using nationally recognized health information standards, which improves data quality and reuse in systems, including EMRS2.
 - Report on relevant laboratory findings, allowing for effective data routing and aggregation.

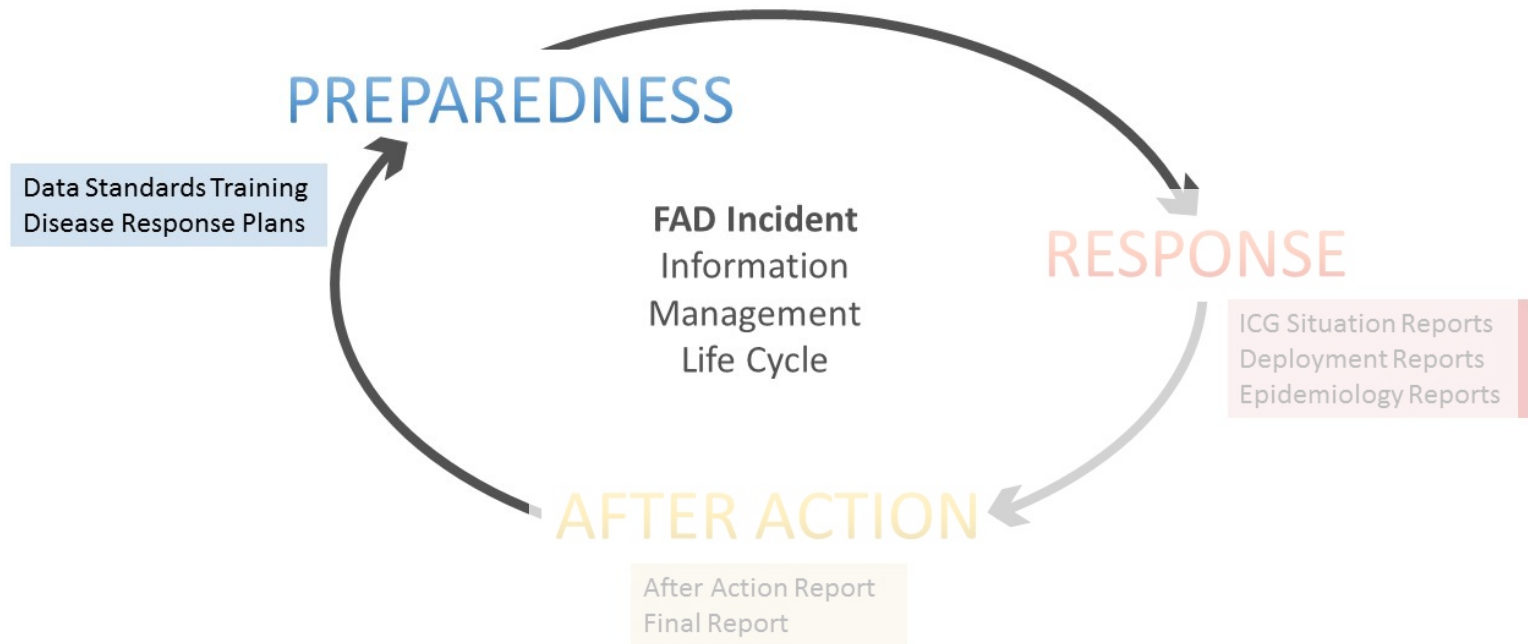
Third Party Systems for Advanced Mapping and Visualization

- Other systems provide important analyses and visualizations for FAD response.
 - *Geographic Information Systems* enables the development of complex, standardized map products and create maps and analyze geographically referenced data for patterns and trends.
 - *Tableau/Tableau Server* are interactive data visualization software products that provide the ability to conduct and visualize advanced data analyses. These products can be useful in a response for all stakeholders.
- Information Management and Analytic Services located in the Centers for Epidemiology and Animal Health is the primary point of contact for these systems and associated activities.

State Data Systems

- Some States use EMRS2; other States record and collect information on premises within their State in other IM systems.
- There is a wide variation in how States have managed premises identification and collection of premises data.
- VS continues to collaborate with States, stakeholders, and agency partners to encourage the opportunity to contribute to, and strengthen the repository of animal agriculture and health data.

FAD Incident Information Management Life Cycle: Preparedness/Prior to an Incident



Note: The documents listed are examples, and not meant to be a complete list of all IM or reporting products.

Overview of Information Management and Reporting Prior to an Incident

- There are many groups involved with IM and reporting as a part of FAD preparedness; general activities include the following:
 - *Developing IM system capabilities* – program staff plays a critical role in identifying needs and collaborating on defining requirements for IM systems.
 - *Data management and quality* – data must be accurate and valid in order to be useful to responders; quality control and quality assurance programs must be developed and implemented.
 - *Reporting templates and processes* – prior to an incident, a wide range of situation reports need to be developed with those internal and external stakeholders who have specific reporting needs.

Prior to an Incident: Premises Location Data

- States collect premises information in IM systems, some States use EMRS2, others do not.
- Accurate premises data, prior to an incident, is critical for response efforts.
 - This needs to be the exact physical location of the animals for the response activities – mailing addresses, personal residences can lead to delays.
- It is preferred that States
 - provide premises data for validation and upload into EMRS2 prior to an incident, or, if States do not share data prior to an incident,
 - work with EMRS2 staff to understand the requirements and conduct data quality assurance processes so that data can be imported smoothly when an incident occurs.

Prior to an Incident:

Diagnostic Results/Laboratory Messaging

- Laboratory messaging through LMS into EMRS2 allows for the real-time transfer of large volumes of diagnostic test results.
- This minimizes time consuming and duplicative data entry.
- Messaging also helps to ensure that diagnostic test results are matched to the correct premises, ensuring appropriate actions can be taken on premises.
- Significant progress has been made to ensure laboratories can message results.
- However, VS recognizes the critical need for electronic messaging and developing additional capabilities in more laboratories for major FADs.

Prior to an Incident: Data Sharing & Coordination

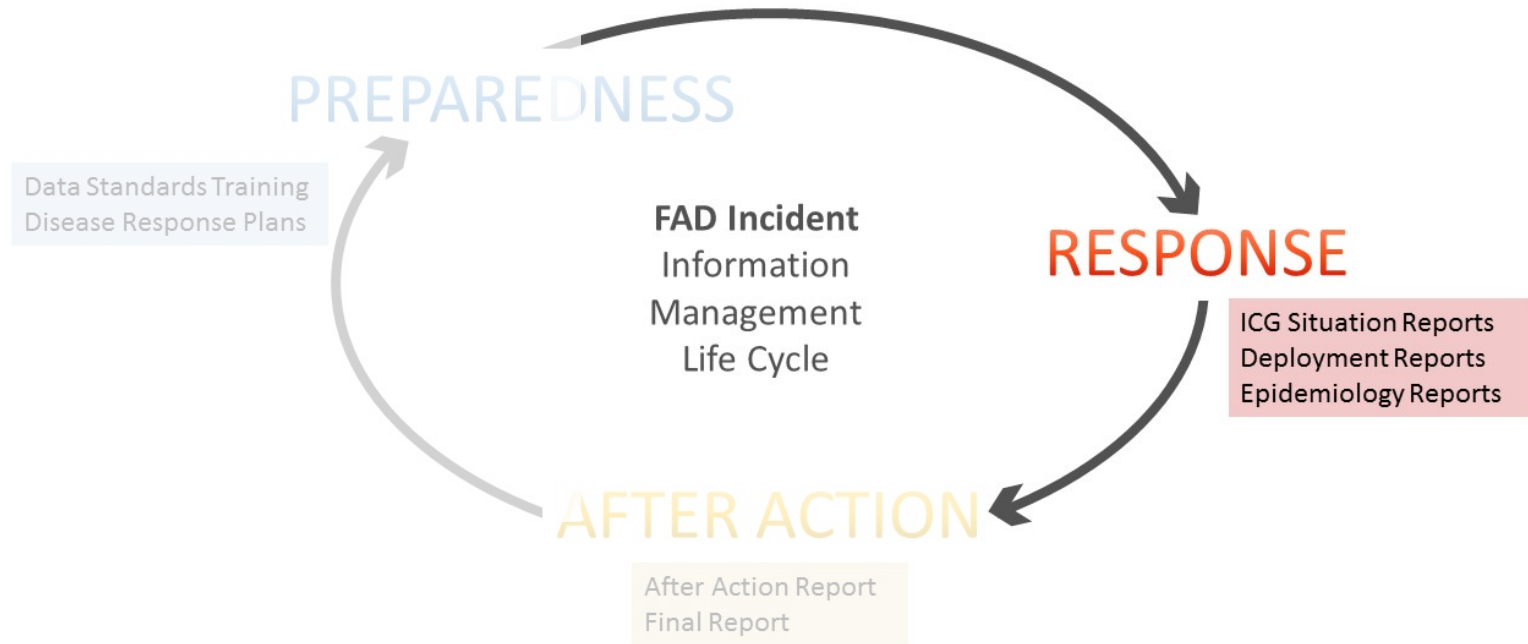
- EMRS2 is the official system of record; some States may use to use other system(s) prior to or during an incident.
- Data sharing processes need to be as effective and efficient as possible (prior planning, quality programs).
- Privacy concerns and lack of system interoperability can hamper data sharing across systems during an incident.
- Effective response, data security, and data integrity are issues of common interest and mutual concern amongst all stakeholders.

Prior to an Incident: Training

- There are many opportunities for personnel to train and exercise the IM systems used in FAD incidents.
- EMRS2 training is offered year-round, specifically for a given user's role and responsibilities.
- VS Training & Exercise Program workshops and exercises offer additional opportunities for practice.
- USDA employees and contractors can find many courses in AgLearn.



FAD Information Management Life Cycle: Response/During an Incident



Note: The documents listed are examples, and not meant to be a complete list of all IM or reporting products.

Overview of Information Management and Reporting During an Incident

- IM and reporting during an FAD incident ensures that responders, stakeholders, and decision-makers have access to accurate and timely critical emergency response information.
- During FAD incidents, a variety of routine reports are required for internal and external reporting purposes.
- The unified Incident Command and Incident Command Post have separate and concurrent reporting requirements that are not covered in this document.

During an Incident: Roles and Responsibilities

- Roles of IM personnel vary depending on the incident and during the incident depending on duration, changes in size, and complexity.
- During an incident, for the National ICG, most of the routine IM responsibilities fall under the Information Management Section.
- Coordination with other sections and branches, as well as the Incident Management Teams (IMT) /unified Incident Command is required to obtain and verify data.
- Data collection and entry is largely done by the unified Incident Command.
- Data quality assurance and control is critical! These activities are conducted both in the field and by National ICG personnel.

During an Incident: Understanding the Tally Sheet

- The Tally Sheet is a form in EMRS2 used to quickly record the best-known information from the incident.
- This information is centralized but may not always be confirmed.
- All data in the Tally Sheet **MUST** be reconciled with the full EMRS2 records when complete information is available.
- Typically data are reconciled at 24-hour intervals by personnel in the Information Management Section.
- The National ICG relies on the Tally Sheet as the source for data for routine incident reports and maps.

During an Incident: National ICG Situation Reporting

- The ICG uses situation reports as the primary tool to summarize actions and conditions of an incident.
- Situation reports include
 - Daily Mini-Situation Report (usually in an e-mail),
 - Daily Situation Briefing (PowerPoint slides/visual),
 - Weekly Situation Report (a more comprehensive look at the week's activities and summarizing data), and
 - Summary List of Infected Premises (a list of all premises and specific dates/statuses).

During an Incident: Specific Reports

- The ICG uses specific reports to provide further detail and summarize data on a specific topic.
- Specific reports may vary by incident, but typically include
 - Epidemiological Report (additional epidemiological curves and information),
 - Permitting and Movements Report (summarized data on permits issued and movements completed),
 - Deployment (more detailed information on personnel deployed to the field and supporting the National ICG).

During an Incident: Maps

- The ICG uses maps to visualize the situation and incident response.
- The Information Management Section utilizes both the EMRS2 Advanced Mapping feature as well as GIS maps produced by the GIS Mapping Cell.
- There are three types of maps that are produced, as follows:
 - ICG Maps (Infected Premises, location, and other critical information),
 - Standard Map Products (Control and Containment Map, Affected Counties Map, Stages Map, IMT Situation Report Maps).
 - Summary Mapbook (county-level information, suitable for public distribution).
- The National Situation Group provides quality assurance/control for all mapproducts.

During an Incident: Summary of Reports

Report Type		Frequency of Report	Source of Data (Currently)	Potential Audience
<i>Situation Reports</i>	<i>Daily (Mini Report and/or Briefing)</i>	Daily	EMRS2 (including Tally Sheet), IMT/State sitreps, phone calls	ICG, States
	<i>Weekly (National ICG Report)</i>	Weekly	EMRS2 (including Tally Sheet), IMT/State sitreps, phone calls, financial staff, other reports	USDA and APHIS Leadership, ICG, States
	<i>Summary List of Infected Premises</i>	Daily	Tally Sheet	APHIS Leadership, ICG
<i>Specific Reports</i>	<i>Epidemiological</i>	Bi-Weekly	EMRS2	ICG, States
	<i>Permitting & Movements</i>	Weekly	EMRS2	ICG, States
	<i>Deployment</i>	Weekly	APHIS Dispatch, EMRS2	APHIS Leadership, ICG, States
<i>Maps</i>	<i>ICG Maps</i>	Daily then weekly	Tally Sheet	APHIS Leadership, ICG, States
	<i>Standard Maps</i>	Daily then weekly	Tally Sheet	APHIS Leadership, ICG, States
	<i>Summary Mapbook</i>	Bi-Weekly (As needed)	EMRS2, Tally Sheet, wildlife data	Public

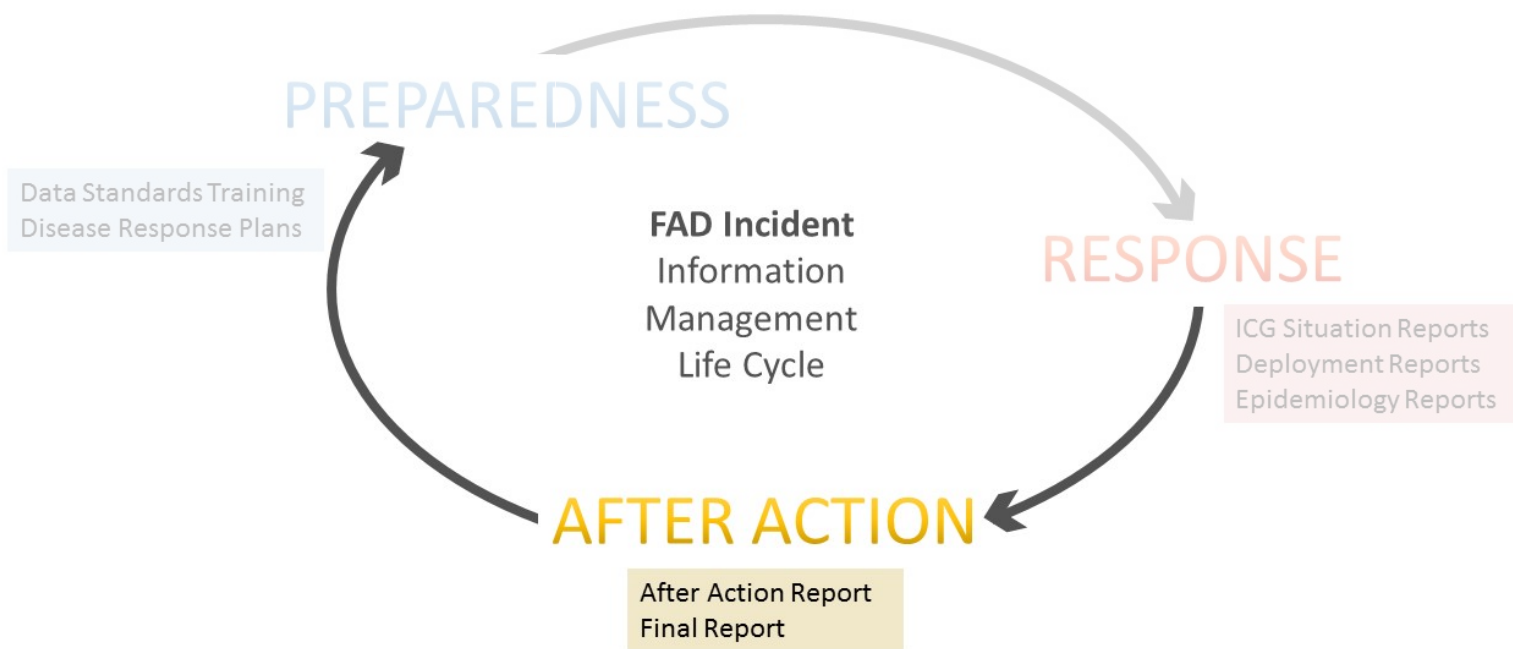
During an Incident: ICG Incident Documentation

- An ICG Action Plan is used to communicate the overall objectives of a response and provide context for operational and support activities.
- An ICG Action Plan captures the following:
 - Daily activities and actions by the ICG,
 - Challenges faced, and resolutions,
 - Any issues that are elevated to a MAC Group or other leadership.
- ICG Action Plans are important tools to document the response and also helpful in developing final and After-Action Reports (AAR).

During an Incident: Other Deliverables

- Other types of reports and analyses may be required in any given incident.
- Other ICG sections (outside the Information Management Section) may be responsible for such deliverables throughout the incident, as well as after the incident (e.g., reports on surveillance, results of epidemiological questionnaires, risk assessments).
- Other outbreak-specific routine reports may also be necessary.
- These documents can all provide important information for internal and external stakeholders.

FAD Information Management Life Cycle: After Action



Note: The documents listed are examples, and not meant to be a complete list of all IM or reporting products.

Overview of Information Management After an Incident

- At the conclusion of an incident, VS conducts an evaluation process to capture what occurred.
- Typically, two products are produced – a final outbreak report and an after AAR.
- Post-incident reporting is comprehensive; it is very important that data in the final report and AAR is accurate and based on the best available information.

After an Incident: Final Report

- Typically, the National Situation Group writes a comprehensive report summarizing the incident.
- Reviews actions from the field, to headquarters/ICG, to any MAC or leadership decisions.
- Provides final, summarized data on all critical activities.
- Important historical record for both internal and external stakeholders.

After an Incident: After-Action Report

- At the conclusion of an incident, APHIS VS conducts a post-incident process to capture lessons-learned for future incidents.
- An AAR summarizes the results of these after-action reviews (also called hot washes), and other data collection methods (e.g., surveys, interviews, etc.).
- Written by the Lessons Learned/AAR Section, the AAR documents both what went well and what areas need improvement.
- An AAR is an important historical record of the incident and can provide a framework for a corrective action program/training priorities.

More Information

- The full manual is available at www.aphis.usda.gov/fadprep.
- For information on the structure and interactions of the Incident Coordination Group, see the *FAD Framework: Roles and Coordination (Manual 1-0)*.

