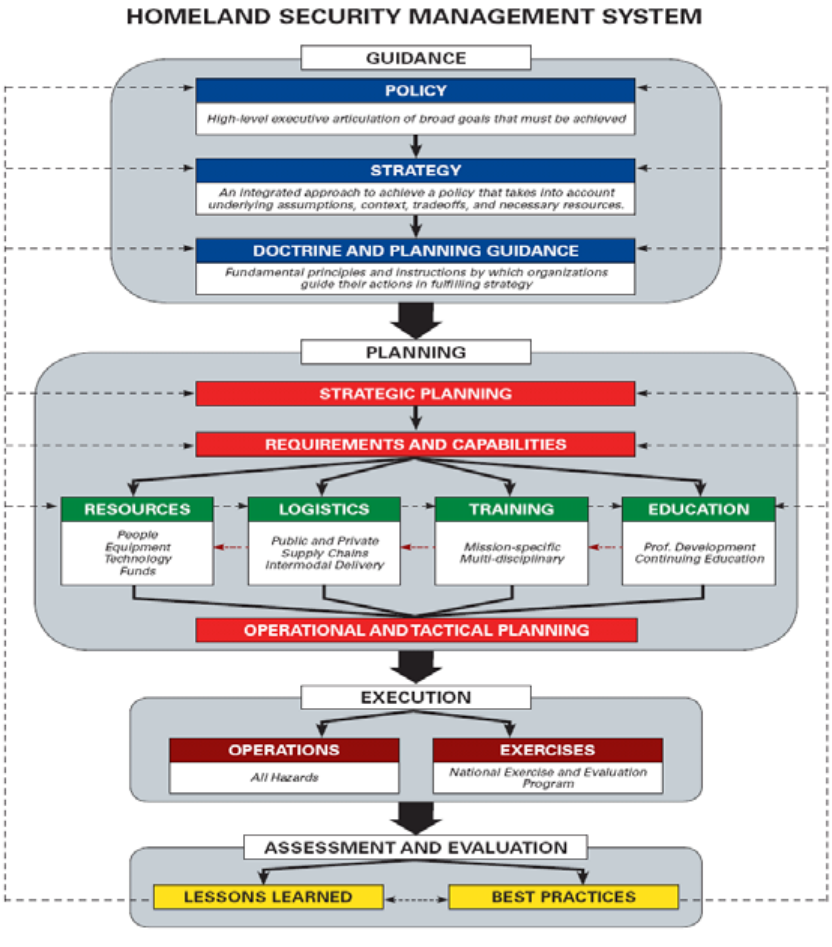
DHS H1N1 AFTER ACTION REPORT: EXECUTIVE SUMMARY

BACKGROUND

The Department of Homeland Security's (DHS) engagement in pandemic preparedness activities predates the 2009 H1N1 pandemic. DHS has coordinated extensively with other Federal Departments and Agencies (D/As) over the past 6 years on pandemic preparedness/response issues, to include leading or supporting the completion of over 140 tasks that DHS was assigned (out of over 300 tasks) in the *National Strategy for Pandemic Influenza Implementation Plan* (May 2006). In addition, DHS published the *DHS Pandemic Influenza Contingency Plan* (December 2006) that addressed both external and internal responsibilities for DHS, and included detailed guidance for preparedness/response activities.

DHS captured lessons learned from its preparedness for and response to the 2009 H1N1 pandemic through a comprehensive After Action Report (AAR)/ Improvement Plan (IP) process. Capturing lessons learned and best practices is a critical element of the Homeland Security Management System, which describes the continual assessment/evaluation of both operations and exercises.



The intent of the DHS 2009 H1N1 AAR/IP was to document both strengths and areas for improvement to enhance future departmental performance during a pandemic or other *all hazards* incident.

As documented by the AAR, DHS clearly demonstrated the capability to carry out its mission during the 10 month period from the time of the first case of H1N1 in the United States (mid-April 2009) through early February 2010. Building upon previous planning and coordination efforts, the Department rapidly and adaptively responded to the threat of H1N1.

EVENT OVERVIEW

Event Name

2009 H1N1 Influenza Pandemic

Event Start Date

April 23, 2009

Event End Date

On August 10, 2010, WHO Director-General, Dr Margaret Chan, announced that the H1N1 influenza virus has moved into the post-pandemic period and that the new H1N1 virus has largely run its course. The decision to move into the post-pandemic phase was based on the recommendation of members of the WHO Emergency Committee.

Duration

15 months +

Location

2009 H1N1 impacted more than 209 countries, including all 50 States, U.S. territories and the District of Columbia.

Mission

The DHS mission described in the *DHS 2009-H1N1 Implementation Plan (I-PLAN)* (July 2009) was "to take all necessary actions to prepare for, respond to, and recover from the potential resurgence of H1N1 influenza to ensure DHS maintains all essential functions while protecting the DHS workforce and those held in DHS care and custody."

Strategic Objectives

- Identify and maintain DHS mission essential functions.
- Protect the DHS workforce and those held in DHS custody.
- Develop and implement mitigation strategies.
- Establish a privacy policy that outlines what personally identifiable information DHS needs to collect to execute this plan, how it is secured and shared, and what limitations exist on using and sharing the personally identifiable information.
- Notify individuals when collecting their personally identifiable information in accordance with the Privacy Act.
- Monitor DHS workforce absenteeism and report significant deviations beyond seasonal baselines to DHS leadership.
- Implement a consistent communications strategy for all DHS employees.
- Review Continuity of Operations (COOP) plans/Continuity of Government (COG) plans for consistency with H1N1 influenza mitigation guidelines.

- Develop pandemic influenza annexes for inclusion in existing COOP plans.
- Ensure continued compliance with civil rights and civil liberties laws to protect the DHS workforce**,** those held in DHS care and custody, and the public.
- Coordinate assistance to impacted states, tribes, territories, and communities.

Capabilities Analyzed

- Emergency Operations Center Management;
- Intelligence and Information Sharing and Release;
- Information Gathering and Recognition of Indicators and Warnings;
- Epidemiological Surveillance and Investigation;
- Responder Safety And Health;
- Critical Resource Logistics and Release;
- Emergency Public Information and Warning;
- Planning; and
- Manage Risk

2009 H1N1 AAR SUMMARY

PURPOSE

The intent of the 2009 H1N1 AAR was to conduct an internal analysis of DHS's actions and effectiveness in preparing for and responding to the 2009 H1N1 pandemic threat. DHS followed planning guidance in the *DHS 2009-H1N1 Implementation Plan (I-PLAN)* to decrease death and illness and minimize mission disruption related to H1N1. DHS designed the plan to ensure critical mission readiness and protection of DHS personnel and people in the care and custody of DHS from the adverse effects of the H1N1 virus. DHS efforts also supported the *National Framework for 2009-H1N1 Influenza Preparedness and Response*, which included Surveillance, Mitigation Measures, Vaccination, and Communications and Education. The purpose of the 2009 H1N1 AAR was to ensure the Department comprehensively assessed its performance, including successes and areas for improvement.

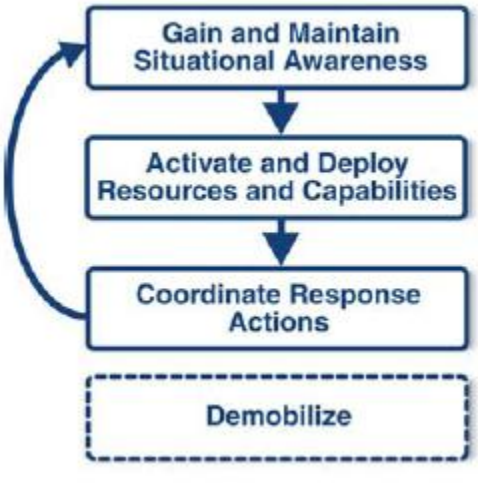
DHS MISSION

During the H1N1 pandemic event, DHS was responsible for making informed operational and policy decisions to prepare for and respond to an influenza pandemic in order to protect the health and safety of the American people at home and abroad. The nature of the H1N1 threat affected a broad range of homeland security operations and required DHS to sustain critical infrastructure, mitigate the impact of the pandemic on the economy and the functioning of society, and maintain all mission essential functions while protecting the DHS workforce and those held in DHS custody.

As noted in the *DHS 2009-H1N1 I-PLAN*, the Department's mission was "to take all necessary actions to prepare for, respond to, and recover from the potential resurgence of H1N1 influenza to ensure DHS maintains all essential functions while protecting the DHS workforce and those held in DHS custody."

EVENT SUMMARY

The 2009 H1N1 was a novel influenza virus that was first detected in late March 2009 in Mexico. Because H1N1 was a novel virus, the majority of the U.S. population did not have immunity to this threat. The virulence of the virus was initially difficult to estimate due to the limited disease surveillance capabilities at the point of the outbreak in Mexico. A severe pandemic, such as the one that the United States experienced in 1918, could have had a catastrophic impact on the global economy, national and homeland security, critical infrastructure, and the basic functions of society. In fact, when WHO declared on June 11, 2009 that the 2009 H1N1 virus was a global pandemic, it was the first time that had occurred in 41 years, and it rapidly focused



worldwide attention on coordinating response requirements.[1]

The NSS developed the *National Framework for 2009-H1N1 Influenza Preparedness and Response,* and described four pillars of Surveillance, Mitigation, Vaccination, and Communications and Education within the Framework to guide U.S. efforts to address the H1N1 threat. A fifth pillar, Governance, was added by the Department. DHS built the *I-PLAN* based upon lessons learned from the first wave in the Spring of 2009.

As the virus spread to the United States, the case fatality rate was very low. Thus, while the virus strain was found to be highly contagious (similar to the one in 1918 that killed millions of Americans), it lacked the virulence to pose the same mortality rates as the 1918 strain. A vaccine was developed and deployed 7 months after the initial detection of the H1N1 virus in mid-October, after the onset of the fall 2009 wave.

As of February 5, 2010, the Centers for Disease Control and Prevention (CDC) estimated a total of 57 million total H1N1 cases in the United States and its territories, including 257,000 hospitalizations and 11,690 H1N1 related deaths.

[1] The WHO defines a pandemic as a worldwide epidemic of disease that occurs when that disease emerges in which humans have little or no immunity, and develops the ability to infect and be passed between humans.

ANALYSIS OF CAPABILITIES

Under the provisions of the *National Response Framework (NRF)* (January 2008) and specifically ESF#8, HHS was the lead federal agency in addressing this public health threat. The supporting role that DHS played was under the authority of HSPD-5 in coordinating the federal response, assuring the full function of the Nation's Critical Infrastructure and Key Resource (CIKR) sectors and finally, supporting the Secretary's role as Principal Federal Official (PFO).

Common Capabilities
- Planning
- Communications
- Community Preparedness and Participation
- Risk Management
- Intelligence and Information Sharing and Dissemination

Prevent Mission Capabilities
- Information Gathering and Recognition of Indicators and Warning
- Intelligence Analysisand Production
- Counter-Terror Investigation and Law Enforcement
- CBRNE Detection

Protect Mission Capabilities
- Critical Infrastructure Protection
- Food and Agriculture Safety and Defense
- Epidemiological Surveillance and Investigation

Respond Mission Capabilities
- On-site Incident Management
- Emergency Operations Center Management
- Critical Resource Logistics and Distribution
- Volunteer Management and Donations
- Responder Safety and Health
- Emergency Public Safety and Security
- Animal Disease Emergency Support
- Environmental Health
- Explosive Device Response Operations
- WMD and Hazardous Materials Response and Decontamination
- Citizen Evacuation and Shelter-in-Place
- Isolation and Quarantine
- Search and Rescue (Land-Based)
- Emergency Public Information and Warning
- Emergency Triage and Pre-Hospital Treatment
- Medical Surge
- Medical Supplies Management and Distribution
- Mass Prophylaxis
- Mass Care (Sheltering, Fedding and Related Services)
- Fatality Management

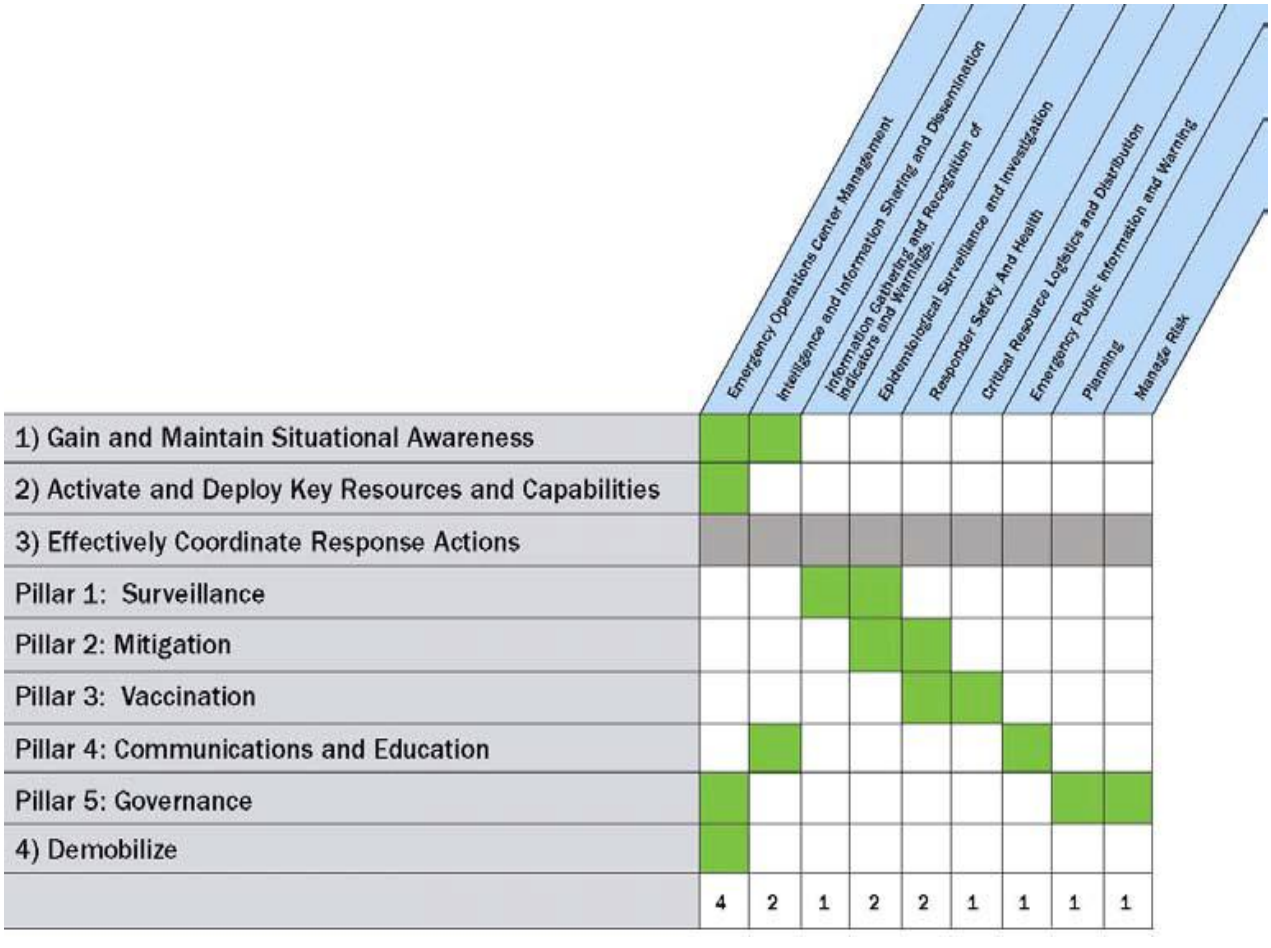
Recover Mission Capabilities
- Structural Damage Assessment
- Restoration of Lifelines
- Economic and Community Recovery

As noted in the NRF, "four key actions typically occur in support of a response: (1) gain and maintain situational awareness; (2) activate and deploy key resources and capabilities; (3) effectively coordinate response actions; then, as the situation permits, and (4) demobilize." The analysis of the DHS response to the 2009 H1N1 pandemic in this section is aligned with these four actions. In addition, the ability of DHS to effectively coordinate response actions is further segmented by the four pillars (Surveillance, Vaccination, Mitigation, and Communications and Education) identified in the *National Framework for 2009-H1N1 Influenza Preparedness and Response* (August 2009), as well as a fifth area of Governance.

Within the four key actions cited in the NRF, AAR observations are further organized by capability derived from the TCL – and associated activities: "The Target Capabilities List describes 37 core capabilities related to four homeland security mission areas: Prevent, Protect, Respond, and Recover. They provide guidance on building and maintaining capabilities that support the National Preparedness Guidelines. The TCL addresses response capabilities, immediate recovery, selected prevention, and protecting mission capabilities, as well as planning and communications" (www.fema.gov/pdf/government/training/tcl.pdf).

OBSERVATIONS & RECOMMENDATIONS

Observations under the Analysis of Capabilities section are organized by capability from the Target Capabilities List and associated activities. There are a total of 41 observations aligned to 9 of the 37 target capabilities. There are a total of 77 recommendations provided within the AAR, which are included in this section. These 77 recommendations were consolidated into 9 high-level, overarching tasks. Each of the 77 recommendations were evaluated and then cross-walked to ensure that all of the specific recommendations were covered by at least one of the higher level final tasks. Observations are also aligned to 12 activities from the TCL with the majority of the observations aligned to the activity of "Develop and Maintain Plans, Procedures, Programs, and Systems."



	Emergency Operations Center Management	Intelligence and Information Sharing and Dissemination	Information Gathering and Recognition of Indicators and Warnings	Epidemiological Surveillance and Investigation	Responder Safety And Health	Critical Resource Logistics and Distribution	Emergency Public Information and Warning	Planning	Manage Risk
1) Gain and Maintain Situational Awareness	■	■							
2) Activate and Deploy Key Resources and Capabilities	■								
3) Effectively Coordinate Response Actions	■	■	■	■	■	■	■	■	■
Pillar 1: Surveillance			■	■					
Pillar 2: Mitigation				■	■				
Pillar 3: Vaccination					■	■			
Pillar 4: Communications and Education		■					■		
Pillar 5: Governance	■							■	■
4) Demobilize	■								
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STRENGTHS

Gain and Maintain Situational Awareness	DHS gained and continued to improve relevant situational awareness throughout the 2009 H1N1 event.
Activate and Deploy Key Resources and Capabilities	DHS demonstrated the ability to modify and inform partners of the NOC's incident response phase designations.
	DHS's deployment of the RCTs and FEMA's use of the IMAT-As demonstrated the Department's commitment to support state and regional partners.
	DHS recognized the need to review and assess the manner in which it conducted workforce safety, mission assurance, and incident management operations during the course of the H1N1 response.
Surveillance	DHS demonstrated the ability to participate in the USG efforts for international surveillance (focused on the southern hemisphere and tropics).
Mitigation	Development of mitigation measures.
	Previously conducted H5N1 planning and training efforts greatly assisted the development and refinement of mitigation measures for H1N1.
	The Department conducted numerous successful exercises in preparation for a pandemic event.
Vaccination	No vaccination strengths identified
Communications	DHS used a variety of processes and tools to ensure internal and external communications were effective.
	There was strong coordination and consistent external messaging between DHS, HHS, and the NSS.
	DHS was able to effectively communicate with state, local, tribal, and territorial government officials.
Governance	NSS oversight and direction.
	The DHS SC structure and processes (including coordination with state and local government and support from WG and OPT) were generally sufficient to provide the level of detail in direction and guidance necessary for the Department and Components to execute required missions, and adequately support the DHS Secretary's needs.
	The Department and Components effectively leveraged, adapted, and modified existing plans to develop/revise Department- and Component-level H1N1 plans.
	State/local/tribal and territorial/territorial (SLTT) coordination, outreach, and deconfliction.
	The Transition from a CAT, focused on near-term immediate actions, to a more long-term OPT was relatively effective and timely.
	OPT support of the H1N1 efforts
Demobilize	No demobilization strengths identified

AREAS FOR IMPROVEMENT

Gain and Maintain Situational Awareness	Critical Information Requirements (CIR) to enable informed decision-making by senior DHS and inter-agency leaders were never fully developed.
	Information sharing between DHS and external stakeholders proved to be challenging at times.
	DHS lacked coordinated content in its analytical products related to medical intelligence.
Activate and Deploy Key Resources and Capabilities	DHS's response to the 2009 H1N1 threat demonstrated the need to consistently use the NOC's situational awareness and information sharing mission to support threat/incident response planning and coordination.
	DHS's use of the RCTs and FEMA's use of the IMAT-As demonstrated the need for a clearer understanding of roles, responsibilities, coordination, and integration efforts to effectively support state and regional partners.
	DHS needs to improve its ability to rapidly provide policy/guidance in support of internal preparedness/response efforts at the same time that it is activating/deploying resources in support of its other missions.
Surveillance	The process and findings to forecast the virus's activity lacked concurrence among all of the Department's modeling partners.
Mitigation	Distribution of Medical Countermeasures
	PPE guidance from DHS was not clear or timely.
	Complete the First Responder Pandemic Guideline

Vaccination	Procedures and communication regarding the vaccination of the DHS workforce were inadequate to support requirements.
	Funding for vaccine supplies (e.g., syringes and gloves) fell short of requirements.
	There was a lack of training/exercises conducted within DHS on the acquisition and release of MCM (including vaccine).
	The prioritization of vaccination for the DHS workforce was not well documented, communicated, or implemented.
	There is a need for a policy that addresses vaccination requirements for non-DHS personnel who are supporting DHS and/or working in DHS offices, field locations, etc.
Communications	HSIN was not used to its full potential.
	Awareness and appropriate application of emergency risk communication principles.
	The communications review process was viewed as cumbersome, and delayed the release of information.
Governance	Delineation of roles and responsibilities between DHS and HHS (and in some cases, internally within DHS) was somewhat slow and reactive.
	Although coordination at the SC level was viewed as very effective, the implementation of SC guidance at lower levels was not as effective.
	Department COOP planning was not as fully integrated as possible, and hence created some governance challenges in terms of implementing authorities.
	At the national level, and to some extent across DHS, the deconfliction of existing plans and full integration of the range and number of planning efforts became a challenge, particularly during the initial weeks/months of the crisis in Spring/Summer 2009.
	The Department's operations centers enterprise (including all coordination nodes), were not as well connected, nor as fully engaged, with all H1N1 deliberate/crisis action planning and response activities across all levels of DHS.
Demobilize	DHS needs to clarify procedures to demobilize after a pandemic.

RECOMMENDED IMPROVEMENTS

Recommended Improvement	H1N1 Framework Pillar	Corrective Action Description
Refine and develop HSIN capabilities, employment, and usage	Surveillance	Further refine and develop HSIN capabilities, employment, and usage to improve its overall functionality as a "one-stop shopping" tool for homeland security partners' situational awareness and COP. Expand efforts to broaden the universe of authorized users.
Integrate departmental continuity SMEs into departmental planning teams.	Mitigation Measures/ Communications-Education	Integrate departmental continuity SMEs into departmental planning teams. Ensure that continuity considerations and elements are included in all DHS planning products (Strategic Plans, CONOPS, OPLANs, etc.) and coordinated with Departmental continuity SMEs. Ensure that Components are properly briefed and cognizant of the content of all planning products and that proper Departmental guidance and direction is disseminated for Component use.
Review and finalize DHS Employee Incident Communication Plan to provide current, accurate situational information to employees.	Communications and Education	DHS needs to review and finalize its Employee Incident Communication Plan, including review by and clearance with Departmental leadership through the Executive Secretariat so that current, accurate situational information can be distributed to employees in a timely manner. Specifically, DHS needs to develop a coordinated system for distributing messages that includes methods to reach front-line employees without access to e-mail.
Develop an electronic reporting system that will provide a real time, accurate status of the DHS workforce.	Surveillance – Communications/ Education	Develop an electronic reporting system that will provide a real time, accurate status of the DHS workforce.
Develop policies and plans for the procurement, distribution, and storage of MCM and appropriate PPE for DHS workforce.	Mitigation Measures/ Vaccination	DHS needs to complete work on the development, implementation, and evaluation of a procurement and distribution program for MCM and PPE to protect the DHS workforce that will be fully functional in an all hazards environment.

Recommended Improvement	H1N1 Framework Pillar	Corrective Action Description
Develop clear policies and guidance how the use of PPE and MCM for contractor use in all hazards environments.	Mitigation Measures/ Vaccination/ Communications/Education	It was identified during the series of pandemic TTXs that policies and procedures on how or if contract personnel should be included in vaccination, MCM, PPE, and training need to be clarified and finalized and communicated to components.
Develop processes for the integration of disparate biosurveillance and medical information and intelligence products into a BCOP.	Surveillance	Prior to and during the 2009 H1N1 pandemic many biosurveillance products including models and products were developed and distributed by a variety of sources. Components expressed a desire to have better information as to the availability, utility, and accuracy of similar products and information. DHS needs to review and incorporate changes in the process whereby updated accurate biosurveillance, medical information, and intelligence products and processes are shared with stakeholders.
Ensure that DHS Senior Leadership has the resources and procedures in place to rapidly address, finalize, approve, and promulgate messages to employees, policy decisions, and operational messages for release to the DHS workforce and stakeholders.	Mitigation Measures	DHS needs a defined process whereby messages to employees from the Secretary or Deputy Secretary are developed, modified, and coordinated/agreed upon among SMEs prior to their submission to the Executive Secretariat for clearance, leadership approval, and signature. An SOP that delineates this process will be developed through OPA and MGMT and coordinated with all Components. The SOP will also detail resources available for DHS Components participating in message development (e.g., a shared team site, Live Meeting, or Office Communicator) to facilitate collaboration on message development. This SOP will be shared with all DHS components through each Component's executive secretariats to ensure Component buy-in to the process, thereby enabling the clearance of products and information in a timely and efficient manner.
Encourage vertical and horizontal integration and coordination of national planning efforts by federal inter-agency and state and local partners.	Mitigation Measures	Encourage both vertical and horizontal integration and coordination of national planning efforts – from federal to local and across the federal inter-agency – to consistently use a planning framework and process to develop an overarching National plan with tailored annexes to address unique approaches for each threat if needed (H1N1, Anthrax, Chemical Attacks, etc.).

CONCLUSION

DHS engagement in pandemic preparedness activities predates the publishing of the *National Strategy for Pandemic Influenza* (November 2005), and has continued in earnest since that time. DHS has coordinated extensively with other federal D/As over the past 5 years on pandemic preparedness/response issues, to include leading or supporting the completion of over 140 tasks that DHS was assigned (out of over 300 tasks) in the *National Strategy for Pandemic Influenza Implementation Plan* (May 2006). In addition, DHS published the *DHS Pandemic Influenza Contingency Plan* (December 2006) that addressed both external and internal responsibilities for DHS, and included detailed guidance for preparedness/response activities.

As documented within the AAR, DHS built upon these previous planning and coordination efforts to significantly increase the Department's ability to respond to the threat of H1N1. Components rapidly modified their existing pandemic plans, and reacted quickly to new requirements established under challenging conditions. The Department clearly demonstrated the capability to carry out its mission, and is better prepared for other threats/incidents, based on the actions taken over the past 10 months to respond to the H1N1 threat.